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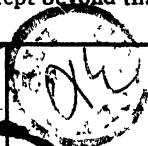
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STANDARDS AND CONTENT OF LIVING*

By JOSEPH S. DAVIS

"Lift up your sights; extend your range." With these words my predecessor A. B. Wolfe closed his presidential address a year ago. In response to his exhortation, I wish to open up with you a large subject that is not merely of deep concern to American economists now. It reaches beyond the borders of economics, back into the past and forward into the future, unto the uttermost parts of the earth.

Professor Wolfe's rifle-firing analogy is highly appropriate in professions that strive to be worthy of the adjective "scientific." We need more sharpshooting, less waste of scattered fire. Some of the proper targets of our aim are balloons that invite puncturing—loose ideas and vague phrases that befog thinking, slogans that masquerade as principles. No less worthy targets are the cords that hold the veil over truths of importance, old or new.

G. P. Watkins did not exaggerate when he wrote thirty years ago: "The standard of life is the central fact in the dynamics of consumption, and hence is of dominant importance for the theory of economic and social progress. . . ."¹ Yet before the theoretical basis has been adequately worked out, great issues involving it have been forced upon us.

The phrase "standard of living" is in constant use—whether we deal with the history of the past century or two, the pre-war situation, current wartime problems, those of the war-peace transition, or the post-war world—whether we discuss facts, goals, or ideals, actual conditions or potentialities—whether we stop with description and analysis or seek to formulate policy and set up new institutions—whether we

* Presidential address prepared for delivery at the Fifty-Seventh Annual Meeting of the American Economic Association, in joint session with the American Political Science Association and the American Society for Public Administration, Washington, D.C., February 3, 1945. Since the meeting was cancelled, the address was not delivered.

¹ G. P. Watkins, *Welfare as an Economic Quantity* (Boston and New York, 1915), p. 97. His context indicates that he had in mind not merely the standard but the plane or content of living as I view them.

are concerned with our own country, backward areas, or the entire world. Nowadays, indeed, "raising the standard of living" is increasingly urged as the basic objective of high policy, national and international.

In our highly dynamic world it is not enough for social scientists to provide an orderly description of life as it is and to analyze social forces as they currently operate. We are necessarily concerned with the evolution of the social economy—local, national, and world—and with the results of experiments, by whatever name they are called, that affect this evolution. We cannot be content with describing and measuring what are variously called standards of living, and with analyzing the ways in which they change. We must also be concerned with aspects of the problems involved in raising or otherwise improving them.

But what does "the standard of living" mean? Is it what is actually experienced? Or what is worked for, or hoped for, or merely dreamed of? Is its central feature total or average income, or consumption expenditures unadjusted or adjusted for price changes? Do possessions as well as fresh acquisitions enter into it? Is it simply "real consumption," or does it include other components such as savings, hours of labor, and literacy? Do freedoms of various kinds figure in it? Is it concerned with "input" or with "outcome," with utilization or with net results in health, efficiency, and satisfactions? Is it something characteristic of the individual or group concerned, or something devised from the outside? Does it include components that cannot be measured?

Merely to ask these questions is to reveal the prevalent confusion of thought. In professional groups, in banking, business, and official circles, and by the man in the street, "standard of living" is used in all of these senses and others. Even among economists and statesmen, it currently means several quite different things. For each of these a distinctive phrase with a fairly definite meaning must be employed if serious errors are to be avoided. It is high time to reform our careless habits of talking about "standards of living."

Basic Concepts

The chief distinctions to be drawn are between *consumption* and *living*, and between *level* and *standard*. The basic concepts are four: (1) consumption level, (2) consumption standard, (3) level or plane of living, and (4) standard of living in the strict sense. The relationships among these several realities are highly significant. Nothing is gained, and much is lost, by the indiscriminate use of a single phrase for these four different concepts and others besides.

Consumption means the commodities, their uses, and services con-

sumed; *living* includes consumption and much more: working conditions, cushions against major and minor shocks, freedoms of various kinds, and what I tentatively call "atmosphere." The *level* of consumption or living, as I see it, is that actually experienced, enjoyed, or suffered by the individual or group; the *standard* of consumption or living is the level that is urgently desired and striven for, special gratification attending substantial success and substantial failure yielding bitter frustration.

These distinctions, far too important to be safely ignored or obscured, are not really difficult to grasp and apply. In daily life we are continually aware that our operating standards are not identical with the perfect or the ideal. We readily admit disparities between our individual standards of order, cleanliness, honesty, courtesy, workmanship, etc., and the levels of our actual performance. Roughly, if not by some form of average, we are accustomed to distinguishing between group standards and levels in these and other respects. Even in the fields of government and administration, experts and observers alike find no difficulty in differentiating between performance levels, current operating standards, and vaunted ideals.

Differences in planes of living are by no means proportionate to differences in consumption levels. It is entirely possible for consumption levels to rise while planes of living fall, for consumption standards to rise while consumption levels remain depressed, and so on. In some countries advance in per capita consumption levels is the principal factor promoting advance in consumption and living standards; in others raising consumption standards is prerequisite to raising consumption levels and planes of living. When planes of living are forced down, as occurs in very different ways in depression and war, radical readjustment of current standards of consumption and living is necessary to avert social disaster; and such disaster is inevitable if margins for readjustment of levels or ability to readjust standards are lacking.

In expressing policy aims for the post-war period, for the United States, for other advanced countries, or for those that are more or less backward, it is important to be clear as to whether the broad objective is to raise consumption levels (as most spokesmen now seem to mean), or planes of living (which I consider a far superior aim), or standards of consumption or living (which may also be desirable).

Consumption Levels and Standards

Actual consumption or *consumption level* is a valuable concept, essential in many phases of analysis; but it should be called by its right name and no other. It is a sort of aggregate of the food, fuel, and other nondurable goods used up, the services of houses, automobiles, clothing,

and other durable and semidurable goods utilized, and the services of human beings used, by an individual or group, in a given period of time. What is miscalled the decline of the "standard of living," in depression or war, usually means such reduction in the quantity or quality (or both) of many of the goods which people consume, that their net aggregate consumption falls. A rise in the consumption level means an increase in the volume of actual consumption, and/or improvement in its quality, such as typically occurs in boom periods and in recovery from depression or war. Precise degrees of increase or reduction in consumption levels are not readily measured, but either is easily recognized by the individual or group concerned, and usually by outsiders also. The reduction or increase is never uniform among all goods consumed; it is accompanied by changes in composition and proportions.

Nutritionists know that a balanced diet for an individual provides not only essential numbers of calories but also minimum or optimum amounts of proteins, several vitamins, and several minerals. The required amounts and proportions vary with age, sex, weight, occupation, exposure, and other factors, and even for broad averages "requirements" are not yet determined with precision. An individual can get a balanced diet from a large number of possible combinations of foods, varying through a wide range in selection, consumer appeal, and cost.

The fact of balance is likewise fundamental in consumption as a whole, though criteria for determining lack of balance in consumption are far less developed than in the science of nutrition. Most individuals are conscious of any severe disturbance of their consumption balance, while minor disturbances may pass unnoticed. One rarely finds a grand piano in a hovel, a gourmet in tatters, or a new Rolls-Royce sported by one who enjoys no other comforts or luxuries. Misjudgments in choosing a home or a car, however, not infrequently entail unexpected sacrifices in food, clothing, or leisure. Essentials for health may be unconsciously or deliberately sacrificed to transitory pleasures or to the acquisition of extended training. In our eyes bric-a-brac held too high a place in Victorian consumption. In retrospect it may appear that gadgets, gewgaws, and gimcracks loom too large in our own. Among the most important tasks of education in various forms is facilitating improvement in the balance of consumption, such as the individual or group concerned will recognize and value.

Consumption may be such as merely to sustain life, at a minimum or conventional level; it is in this sense that the obsolete phrase "means of subsistence" was long used. It may go further and enhance the productive power of the consumer and/or enrich the quality of life. On the other hand, consumption may be so distorted as to diminish health and life expectancy, reduce productive power, and impoverish the

quality of the life lived. Physical environment, occupational status, and skill in choosing and using goods have much to do with the volume and composition of consumption required to yield a given level or content of living. Equal or equivalent aggregates of goods consumed do not insure equivalent planes of living for the thrifty and the spendthrift, the sober and the drunk, a Californian and a Minnesotan, a university professor and a shipyard worker, a mid-western farmer and a New York City business man, a 16-year-old boy and a 60-year-old woman, a Frenchman and an American.

Deterioration of the consumption level is rarely proportional to its quantitative decline. Raising the consumption level by no means insures significant improvement in it. In our American life, there is wide scope for improving the consumption level without raising it and while reducing some elements in it. Overeating and other excesses in consumption frequently entail not only waste but positive injury, and some curtailment may be essential to improvement of the consumption balance. Losses of vitamins and minerals in food preparation can be minimized by methods that improve palatability as well as nutritive content, and better satisfaction of needs and wants achieved even with reduced consumption. The ways in which enlarged purchasing power is utilized profoundly influence the net result in terms of living.

For such reasons, measures of consumption levels afford no reliable indexes to planes of living. Broadly speaking, consumption comprehends what is used, while living is more concerned with the net outcome in relation to deep-seated cravings, basic needs, and other wants.

Acquisition for consumption by purchase, another concept in common use, is by no means identical with actual consumption. Important progress has been made in analyzing and forecasting consumption expenditures, and from these, adjusted for changes in prices, are derived valuable indexes of what is sometimes miscalled "real consumption" or the "standard of living." Publicity has recently been given to such indexes purporting to show that the British consumption level of 1943 had fallen 21 per cent below that of 1939, while the American had risen 15 per cent.² Actually, whatever the virtues of these comparative figures, they are not reliable indexes of the two consumption levels. They necessarily ignore elements of consumption that do not enter into exchange, the consumption of purchased goods already possessed, many types of quality change, and important distributive aspects hidden behind aggregates and averages.

In the simpler days of the past, self-service, mutual service, and

²"Real Consumption in U. S. Gains during War as Standard of Living Falls in Britain," *Anti-Inflation Bulletin* (Life Insurance Companies of America, New York), Dec. 20, 1944.

barter loomed large compared with pecuniary exchange. In parts of the present-day world, and even in some parts of modern life, these non-pecuniary areas are by no means negligible, and they are capable of expansion under stress of depression or war. Victory gardens present one striking example. Moreover, where consumers possess large stocks of durable and semidurable consumer goods, consumption expenditures may shrink or expand materially without affecting current consumption in any comparable degree. It is a serious blunder to confuse consumption expenditures with consumption, and to infer that changes in either income or consumption expenditures, however deflated, imply corresponding changes in the plane of living.

Consumption levels are profoundly influenced by changing consumption standards, but are by no means identical with them. The *consumption standard* of an individual or group is the consumption level that is earnestly desired and eagerly striven for, in respect of quantities, qualities, and proportions of the various goods consumed or wanted for consumption. In the Western World, the consumption standard is typically above the consumption level proper; but it is not an ideal or a mere dream. Nor can it safely be raised, even for future application, too far above the level actually attainable. We court disillusionment and frustration if we inflate our consumption standards for the post-war period to the point of insuring failure to approach them.

The consumption standard actually held by an individual or group, its very own standard, must be sharply distinguished from those devised by outsiders—legal, expert, or otherwise. Such *external or normative standards* typically refer only to particular components, not to the entire consumption level. Sometimes they are legal minima, as in the fields of education and housing. Sometimes they are recommended optima, with liberal margins of safety, as are the Food and Nutrition Board's Recommended Daily Allowances of the various nutrients. Sometimes they are more or less well-based opinions as to what would be "good for" the individual or group in question. The standard cost-of-living budgets proposed by the Heller Committee of the University of California are composites of the estimated consumption expenditure standards of the group, padded to meet certain "standards" regarded as objectively established and others devised by the authors.

Many such external standards can be used so as to contribute to improvement in consumption levels. By no means all of them, however, are reliable, in general or in detail, or acceptable to the intended beneficiaries. If applied under pressure, indeed, some may lead to a patent imbalance in the content of living, rendering it less satisfactory than before. In inter-war British experience, certain improvements in

the housing of working people are said to have led to deterioration in health because higher rentals left less to be spent for food. The exceptionally high percentage of literacy attained by the Japanese may have entailed excessive sacrifices in their consumption level as a whole.

Fundamentally important though good nutrition is, it cannot be expected that individuals or groups will give it complete primacy among their wants. The poorest insist on their luxuries. Sir William Petty found that Irish peasants of the mid-seventeenth century, living in utter squalor on very poor diets, spent two-sevenths as much on tobacco as on food.³ In parts of India the ryot living in dire poverty extravagantly gratified "his passion for marrying off his daughters expensively, and giving his father an elaborate funeral."⁴

In general, optimum standards in respect to specific needs are rarely attainable if the consumption level of the individual or group is necessarily deficient in several respects. This is not generally realized. If the attainable average level is, say, only 50 per cent of the most conservative optimum, 100 per cent plus a margin of safety will rarely be aimed at in any one phase of consumption, e.g., nutrition. Under such circumstances, some sacrifices of needs to preferences is almost inevitable.

Plane or Content of Living

The most important single concept in this field is often reasonably called the plane or level of living. The word "content" better suggests a more than two-dimensional quantity, something in which composition and quality as well as size are important, and something to which one can apply not merely the adjectives high-low but also such others as superior-inferior, expensive-thrifty, elaborate-simple, and ample-restricted. "Improving the content of living" is much more meaningful than "raising the plane of living." The words "plane" and "level," however, are convenient to use with this enriched meaning.

The *plane or content of living* is a reality experienced by an individual or group. It is made up of a complex combination of consumption, working conditions, possessions, freedoms, and "atmosphere," and the balance or harmony among them, in relation to needs and felt wants.

Consumption includes having available, as well as using, free goods of nature and public goods that are utilized without charge, and self-service and mutual service, in addition to purchased commodities and services and the use of semidurable and durable goods owned or rented.

³ C. H. Hull, ed., *The Economic Writings of Sir William Petty* (Cambridge, England, 1899), Vol. I, pp. 188-92.

⁴ Vaughan Nash, *The Great Famine and Its Causes* (London, 1900), p. 91.

Working conditions include hours, variety, and intensity of labor, provision for health, safety, comfort, convenience, and training if necessary, regularity of employment and security of tenure, opportunity for advancement, personnel relationships, even beauty of working environment—and lacks in these several respects.

By *possessions* I mean physical stocks of goods, savings and investments, insurance protection and related rights, developed abilities and connections, and other reserves for cushioning the actual or potential shocks of life.

Among *freedoms* are included not merely freedom of religion, expression, movement, association, and participation in government, but also freedoms to learn and to earn, to choose one's occupation, to select among a variety of goods that combination which suits one, to venture and to advance or fail.

Under *atmosphere* I include such assets as the sense of being wanted, of security, of harmony with one's fellows—in home, school, farm or factory, community, and the larger world—and such liabilities as repellent fears of death, illness, friendlessness, unemployment, war, and the strains incident to broken homes and to heightened uncertainties of many kinds. The hope of progress, or lack of it, is often a highly important element.

All of these and more, I think you will agree, figure in the individual's content of living. Each of us can readily estimate how a change in any element in this complex has affected or would affect his own plane of living. With larger margins of error, we can understand them as applying to groups small and large.

Neither individual nor group is continually conscious of all such components in the plane of living, or can be fully articulate about its details. But the same is true of the individual's philosophy of life and the policy of a nation: they exist even if not comprehensively formulated and clearly expressed. Some components of the plane of living, indeed, are taken for granted or lie dormant, as it were, until some crisis reveals their existence or removal. The preciousness of life itself is seldom acutely realized until it is in danger of being lost. Many Americans were hardly aware of the degree to which they cherished certain freedoms and atmosphere elements until, with Pearl Harbor, these were threatened, curtailed, or lost.

It is highly important that we should not overlook or ignore these non-consumption components. In the improvement in the American plane of living over a generation or a century, it is beyond question that reductions in full-time working hours, betterment of factory and farm conditions of work, enlargement of insurance protection in many forms, and increasing freedom from isolation which the telephone, automobile,

movie, and radio have brought, have figured heavily along with increased volume and variety of consumption itself. The increasing prevalence of nonessentials which yield satisfaction out of all proportion to their cost—of which the radio is an outstanding example—deserves special emphasis.

The character of the content of living, like that of consumption, depends upon its composition or structure, in particular upon the degree of harmony or *balance* among its components. Within limits, one element may be accepted in substitution for another: heavier consumption may offset less desirable working conditions, consumption may be sacrificed for added freedom, larger savings may offset consumption restrictions, and so on. Beyond certain limits, however, further restrictions of consumption, possessions, or freedoms is reckoned intolerable, no matter how ample other elements in the complex may be.

Improvement in the content of living can often be brought about more easily and more substantially by limited changes in its structure than by increase in the consumption level as a whole. As in Liebig's law of the minimum and its variants in science and economics, a favorable change in some highly deficient component may so improve the whole content that reductions in some others will cause no injury. Here is a valuable hint toward the technique of improving the living planes of depressed groups or peoples whose productive or earning power is low.

A well-balanced simple plane of living may be definitely superior to an ill-balanced elaborate plane, just as a cheap, balanced diet is more nutritious, and perhaps even more satisfying, than an expensive, ill-balanced one. A very low plane or poor content of living, however, makes the individual or group weak and vulnerable. The Irish famine of the 1840's was so devastating because the huge population largely subsisted on the cheapest carbohydrate and had no reserves to fall back on when blight ravaged the potato crop. Probably the worst damage to conquered European peoples in this war has been suffered by the Poles and the Greeks, whose plane of living had been low.

A high, balanced, ample plane or content of living, on the other hand, is a source of strength to the individual, group, or nation. Among other things, it permits substantial shrinkage in one or more components to occur without serious damage. Typically, cuts are taken where they hurt least, instead of at vital points. The amazing record of the United States during the present war is heavily attributable to the realized possibilities of drawing upon various reserves implicit in our ample and expensive pre-war content of living. By utilizing our huge stock of durable consumer goods, and foregoing most additions to and improvements in them, we could divert our plants and engineering primarily to war purposes. We could expand employment and lengthen the working

week, and enlarge our agricultural output with fewer farm workers. We could readjust our content and standards of living without radical injury to health, efficiency, or morale.

Similar factors go far to explain the survival of the United Kingdom when her engulfment seemed to many inevitable, her leadership in the war before Pearl Harbor, and her effective continued partnership in subsequent years. Far more than Americans, the British have demonstrated remarkable ability to tolerate drastic shrinkage of their accustomed content of living and yet maintain their health, efficiency, and balance. Germans, Russians, and Japanese have all displayed unexpected reserves above bare subsistence that could be devoted first to armament in all its phases and then to prosecution of the war itself. The present vulnerability of Germany and Japan lies partly in the narrower margins they have for contracting their planes of living, hence the smaller reserves that they can draw upon to avert defeat.

Standards of Living

The *standard of living*, in its most significant sense, is the plane or content of living which an individual or group earnestly seeks and strives to attain, to maintain if attained, to preserve if threatened, and to regain if lost. Though influenced by subjective factors and not easy to ascertain with precision, it is no less a reality than the experienced content of living. It is likewise made up of components urgently wanted and worked for, not of dreams or visions, but in various respects it is typically ampler than the current plane of living.

The relationship between level and corresponding standard is of profound significance. This is one basic reason for sharpening the distinctions on which I insist. The urgent, unsatisfied wants may be for additional consumer goods or a better quality of them, for shorter hours of work or more regular employment, for better protection against illness, death, war, and depressions, for enlarged freedom to learn, speak, vote, travel, or shift occupation, for greater harmony in the home, factory, community, nation, and community of nations. It is this margin between standard and content of living that furnishes essential incentives to achieve an ampler content of living. Indeed, here is a major reason why some countries have achieved political and economic advances, and why population growth has slowed down in the Western World. Even where in our eyes the standards are grotesquely distorted, as most of us believe to be true of those developed under the Hitler régime in Germany, we recognize the power of the incentives provided by the difference between plane and standard.

Where level and standard are virtually identical, the individuals con-

cerned are either content with their lot or despair of improving it, so that incentives to progress are lacking. Conceivably this may be true of the great majority of mankind, who subsist on very low levels under the pressure of hopelessness. There is a vicious circle of gross poverty, inefficiency, and stagnation if not retrogression. One of the most ominous facts of today is that the greater part of the world's net increase of population is taking place where such conditions prevail. Among such peoples, a prerequisite to improving their consumption level and content of living may be to get them first to raise their standards by stimulating fresh wants and loosening the grip of custom and fatalism.

Marked disparity between standard and content of living, however, often has serious consequences. The strains imposed by the severely shrunken content of living in the Great Depression of the 1930's are vivid in our recollections. It may well be that at its worst people were generally better off, in various essentials, than in fairly prosperous times fifty years earlier. Even so, the sharp contrast between what they had and what they urgently wanted and felt they had reason to expect was extremely hard to bear. In depression and in war, it is only by painful readjustment of current standards that the conditions become endurable.

People differ greatly, of course, in their preferred patterns of living. The French are noted for their consumption efficiency; on smaller volumes of consumption, they can live better than many other peoples can. By contrast, Americans are notoriously wasteful in their consumption habits, and therefore require a far larger volume of consumption to yield the same results in terms of living. Some individuals, groups, and peoples set great store by security and leisure, while others prefer to work harder and accept ups and downs if they can enjoy convenience, variety, and a sense of opulence. Freedoms of various kinds are much dearer to some groups than to others. Certain characteristics of the standards of living of a people or group get crystallized into the structure of their planes of living.

Large portions of mankind, now as in the past, rate status and stability very high in their standard of living. For many individuals and groups, however, not only change but what is considered progress is a vital element in the standard itself. Mere achievement of a specific plane of living is not enough. Their standard of living includes the continued sense of achieving advances. In effect, their standard is typically rising, and mere failure to advance spells deprivation if not frustration.

In the face of assumptions that standards of consumption and living are more or less stable, the fact of changes in standards deserves renewed emphasis.

Standards of living most obviously change for individuals, as they progress from infancy through childhood, adolescence, youth, maturity, family life in its successive phases, and old age. Needs, preferences, and priorities alter through this human cycle. For the family groups in which most individuals live, moreover, standards of living change as the group's composition undergoes successive alterations. They also change for communities as these grow or decline and are affected by outside forces as well as by internal evolution. They change for nations, as we have witnessed repeatedly in the past thirty years. We are now in the throes of changes in the *standards* of living of the community of nations.

Standards change both under the pressure of necessity and under the pull of opportunity. They change under the influence of physiological, psychological, and social factors or forces. Major transitions from one standard to another inevitably involve pain, sometimes more than offset by compensations, whether the cause is birth or death, marriage or divorce, prosperity or depression, threat of war or prospect of peace.

Alongside the current standard of living in the strict sense just explained, there is the deferred standard of living. Young people in high school or college, engaged couples looking forward to marriage, older folk looking forward to retirement, and people in general in the midst of depression and war, all develop more or less articulate ideas as to the kind of living they urgently want when a stage looked forward to is reached. Though recognized as a *standard for deferred application*, this figures in the atmosphere components of the current plane *and* standard of living. Individual and group morale depends heavily on the character of such deferred standards. If these seem reasonably attainable in the not too distant future, current standards will be re-adjusted so that the current living content will be tolerable even if it is grossly inferior to former standards in respect of consumption, working conditions, and freedoms. If it seems hopeless to expect to regain former standards, to say nothing of attaining ampler ones, the atmosphere component of current living is so profoundly affected that the basis for revolutionary explosions is laid.

The deferred standard of living, indeed, frequently rises during a period of severely depressed planes of living. In this country consumption standards rose strikingly above predepression levels during the 1930's, especially in respect to durable consumers' goods. Technical improvements, cost reductions, low-price policies, and effective advertising led to impressive enlargement of the rôle of many durable consumer goods in American life. This culminated in the huge output and purchases of durable consumer goods in 1941. It is not yet generally

appreciated how important a cushion against the wartime restrictions since Pearl Harbor was provided by the heavy stocking up with durable and semidurable goods in the years 1938-41.

During the current war, in respect of consumption and adjustment among the components of the content of living, our standards for deferred application have risen strikingly. This is partly because of technological improvements, prospects of cost reductions, hopes of larger national income, and extensive advertising of goods and goals. It is partly because millions have earned larger incomes, accumulated more savings, and/or acquired more claims on future income than they ever expected to have, and they feel justified in cherishing ampler and better balanced deferred standards of living which a decade ago would have seemed vain dreams. Meanwhile, other millions, who have had to endure painful readjustments in their current content and standard of living, feel justified in expecting at least to regain and even to improve upon their former levels. Customer research organizations and polls of public opinion have already scratched the surface of ascertaining some of the specific ways in which standards for post-war application differ from the present content of living.

Now, however, we are in danger of erroneously forecasting the standard of living that Americans will choose after the war. I doubt very much if we shall choose the combination of goods, work, freedoms, etc., that will yield a national income averaging 10-15 per cent above \$1,000 per capita in 1943 dollars. Other factors aside, a good deal of the increased money income during the war represents the extra inducement to make sacrifices, for the time, in consumption, leisure, working conditions, and freedoms. In the absence of national emergency even this inducement would not suffice. From the standpoint of past and prospective peacetime standards, we are considerably overemployed now. When the war is really over, I do not believe that 60 million out of 135-140 million will choose to be "productively employed," if this is interpreted in the usual narrow sense of excluding homemakers, volunteer workers, the armed services, and those in various levels of schooling, unless a far greater number engage in part-time employment than is in prospect. The post-war standard of living that the people actually choose will have more influence on the content of living than the standards put forward by specialists, publicists, and political leaders.

Conclusion

I have tried to make it easier to use a number of good terms with fairly specific meanings, and to make it harder to use the phrase "standard of living" without pausing to consider which of a score of diverse

meanings is intended. I have also endeavored to bring into clearer view a few truths that are too often obscured by loose thinking and speaking.

If time permitted, I should like to explore the subject much further: to examine the impact of the present war on consumption and living levels and standards, in the United States and other countries, and to try to forecast the types of readjustment to be expected; to consider some difficult problems of measurement, and the possibilities of deriving significant indexes of planes of living; to inquire how far inter-group and international differences in levels or standards are normal and should persist, and to what degree steps toward what is miscalled "equalization" are desirable and feasible; to elucidate further the interrelationship between levels and standards, and changes in standards themselves; to analyze some promising techniques for improving the plane or content of living where it is especially low or restricted; and to reappraise standards of living in the Western World in the light of world population trends.

These are some of the targets within range. I have ammunition to spare, and am eager to test my marksmanship further. But the order to cease firing is about to be given, and I must conclude with a brief statement of faith.

Improving planes and content of living, with due respect to varied needs and preferences, is an eminently practical and wholesome overall objective of individual ambition and of national and international policy. Achievement of such improvement is no mere humanitarian dream. It is basic to attaining fuller utilization of available resources, hence of serious concern to economists. It is fundamental to the maintenance of peace and orderly political progress, hence of serious concern to political scientists as well.

Amid the strains and drains of war, it has been borne in upon us that the world's productive powers are far larger than had been realized. We are raising our sights and extending our range. Despite appalling wastes and devastation, most of the vast accumulations of the ages remain for widening use. Depletion of exhaustible resources has been more than offset by new discoveries and techniques of substitution. War-time pressures have compelled learning new arts and stimulated effective research into better means of satisfying wants for essentials, comforts, and luxuries. Science, technology, and management have achieved near-miracles, and many more are in the offing. Increased mobility and better communications facilitate coöperation over great distances. New machinery for international operation is under construction.

We have much to learn and far to go before we shall attain the understanding and master the techniques of social engineering that

the tasks call for. We must bravely face the prospect that nothing like the full potentialities can be realized within calculable time. Even so, there is ground for expecting that, in the next twenty to thirty years, the planes of living of most of the world's peoples can be raised well above the pre-war levels. Our own national interests are deeply involved in translating this possibility into actual fact. The rate and degree of progress in this direction will depend heavily upon the people and government of the United States. And important contributions from economists and other social scientists will be essential to sound progress toward these reasonable goals.

THE EFFECT OF INTEREST RATE INCREASES ON THE BANKING SYSTEM

By PAUL A. SAMUELSON*

Simple truths need constant repetition. Current American discussions suggest that it may be advisable to assert the following propositions:

1. *The banking system as a whole is not really hurt by an increase in the whole complex of interest rates. It is left tremendously better off by such a change.*

2. *A typical single bank, taken by itself, is not really hurt by an increase in the whole complex of interest rates. It is left better off by such a change.*

The author wishes to emphasize that he does not believe interest rate increases to be probable or desirable.

I

If a bank were a university, nobody would doubt that it would be made better off by an increase in the interest rate. At worst, it could continue to hold all existing gilt-edge securities to maturity and be no worse off. As these matured, the proceeds could be invested at higher rates with a resulting increase in income. It would be better off in the sense that ceteris paribus it could hire more teachers per year, spend more money on buildings and stadia, engage in more research.

The only exception would be in the limiting and unrealistic case where all its money was invested in perpetuities. But even here it would be no worse off. In every other case it would be better off.

If the treasurer of the college has had a college course in financial mathematics, or if his secretary owns a book of compound interest tables, he should be able at each instant of time to calculate the *present value* of his assets: *i.e.*, the discounted value of all future income streams. In any case, in a reasonably perfect capital market this will be done for him and will be reflected in the quoted prices of the securities he holds.

Obviously, when the rate of interest goes up and is expected to remain up, the present value of his assets goes down. Now there are many purposes for which the reckoning of present value is indispensable.

* Mr. Samuelson is now on leave from his position as associate professor of economics at Massachusetts Institute of Technology while he is engaged in technical warwork.

But it will be readily seen that the problem of forming a judgment of the good or bad effects of an interest change is not one of them. We have seen that the university is better off in the only reasonable sense of the term (disposable real income over time), and yet *present value* seems to give an opposite indication.

Does this mean that a university should buy bonds without taking account of probable future long-term rates of interest? Of course not. Suppose the treasurer of Siwash buys a bond today, and the treasurer of Sweet Briar does not. Let interest rates rise tomorrow. The price of bonds will drop. Obviously, the woman treasurer has done better than the man. She can buy the same income stream for less money, or can get a larger income stream for the same money.

If, on the morrow, an angel came to Siwash and asked the treasurer whether he wished rates of interest to rise, what would he answer? Unless he were a fool, or an ingrate who valued his own reputation for sagacity more than the welfare of his Alma Mater, he would of course answer, "Yes." It would be but human for him to add wistfully, "If you had only come around yesterday. . . ."

Clearly then, an interest rate increase which you have not anticipated is a good thing, ~~even though an increase you have anticipated and gambled on is a better thing.~~ If interest rates rise without your having speculated on their doing so, you should not feel any worse than at not having picked the winner in yesterday's horse race, or at not having sold short stocks which events later proved would fall. And certainly any unavoidable feelings of recrimination should not cause one to forego very great gains just because only partial advantage of them can be taken. It is better to "place" or "show" than not to be in the money at all. *Ex ante* decisions should be directed to *ex post* advantage; *ex post* advantage should never be sacrificed to *ex ante* decisions.

Conclusion: *A university is not really hurt by an increase in the whole complex of interest rates, declines in its capital values notwithstanding. It is really left better off by such a change.*

II

So much for the case of a university, where no one can fail to draw correct conclusions. Let us turn now to the intermediate case of an insurance company. How does it differ from a university? Each receives inpayments, owns earning assets, and must make outpayments. The contractual nature of these outpayments differs, and therein lies a partial distinction. But not too much should be made of this difference. Many of the expenses of a university are relatively fixed and even

subject to legal commitment, while the insurance companies, by the prevailing practice of setting rates higher than cost (as revealed by subsequent experience), are able by variable dividend policy to control an important part of their outpayments.

As far as the policies already in force are concerned, an insurance company can pretty well tell in advance the whole future pattern of its net outpayments. The contingencies which occasion outpayments are specified in the policy, and the actuarial large-scale frequency of these contingencies is relatively predictable. Indeed knowledge of future outpayments on insurance now in force would be almost perfect were it not for the options (changeover, lapse, waiver, borrowing, etc.) included in insurance policies. But even these factors can be estimated, in terms of various probabilities, with a considerable degree of accuracy.

Of course, insurance companies are not loath to sell new policies. With perfect knowledge of the future course of interest rates, the application of sound actuarial principles makes this a factor of no great importance because each group of like policies can "stand on its own feet." This, after all, is the important purpose of reserves in private insurance. In any case it should be pointed out that the general course of future sales is in large measure predictable as to trend. Except for national income, which is subject to cyclical fluctuations, the relevant factors such as age distribution change slowly. And, in fact, every insurance company tacitly proceeds in its administration upon a "going concern" basis and indeed upon a "growing concern" basis. This is only proper.

If charges in the past have not been set too low, and if dividend policy has not been overly generous, it would be possible for an insurance company to arrange its portfolio in relationship to the future time pattern of commitments so that the company would be perfectly hedged against all future interest rate changes. Bond coupons and retirements would be staggered so as to produce exactly the right amount of cash even if no new business were taken on, and regardless of what happened to the market value of securities held. This is not the current policy of insurance managements. Although no criticism is implied by the statement, they usually take an implicit speculative position.

Can we say then that under these conditions of perfect hedging on old business, insurance operations are not affected by interest rates? No. An increase in rates would still benefit the insurance business and policyholders. But its benefits would go completely to *new* policyholders, who would pay less for the same coverage, or get more coverage for their money.

Realistically, we encounter a combination of these extremes. The benefit is divided between new and old policyholders. Guaranteed interest rates on new policies are (quite properly) relatively slow to change over time. Increased earnings are distributed in dividends to all policyholders, old and new. In addition, because insurance companies take an implicit speculative position, there is a further effect as a result of interest rates increase.

The following theorem will indicate the exact conditions under which interest rates help or hurt a given person or institution: *Increased interest rates will help any organization whose (weighted) average time period of disbursements is greater than the average time period of its receipts.*¹

In our previous discussion we implicitly assumed that the disbursements of a university were spread evenly over an indefinite time in the future, and so an interest rate increase was good for it. *Present discounted value* proved to be a false indicator, not so much because the concept is at fault as because it was applied to only one part of present values, *i.e.*, to the income stream. If we had considered the steady stream of outpayments of the university as negative inpayments, had discounted them and added them *algebraically* to present value, then we should have found the whole expression to be algebraically increased rather than decreased by an increase in interest rates.

The only figures relating to the maturity dates of life insurance portfolios at hand refer to holdings of government bonds. These figures suggest that up to 1943 the average maturity date was less than 10 years. On existing policies in force, the average date of outpayment could not conceivably be less than ten years, because of the fact that there is a growing population of insured individuals who buy level premium policies in the productive age years. Therefore, insurance companies were speculating explicitly or implicitly that interest rates would rise. If we consider insurance as a growing business, which

¹Let N_t = inpayment t years after the present, C_t = corresponding outpayments, V = present value, i = interest rate per annum averaged over time.

$$\text{Then } V = \sum \frac{N_t}{(1+i)^t} - \sum \frac{C_t}{(1+i)^t}$$

$$\text{and } \frac{dV}{di} = -\frac{\log_e (1+i)}{(1+i)^2} \left\{ \sum \frac{tN_t}{(1+i)^{t-1}} - \sum \frac{tC_t}{(1+i)^{t-1}} \right\}.$$

By rearranging terms, we find that $\frac{dV}{di} > 0$ depending upon whether $\bar{N} > \bar{C}$ where \bar{N} , \bar{C} are respectively weighted average periods of inpayments and outpayments, whose weights are proportional to discounted dollar amounts.

means that net outpayments in excess of inpayments will *not* occur, except temporarily, for a long period of time in the future, this conclusion is strengthened. (It should be pointed out in the last connection that the companies can partially protect themselves from a *fall* in interest rates by revising the terms upon which new business is written.)

TABLE I.—OWNERSHIP OF MARKETABLE SECURITIES ISSUED OR GUARANTEED BY THE UNITED STATES

Securities Due or Callable:	(In billions of dollars)						
	Amounts Held February 29, 1944						
	Com- mercial Banks	Savings Banks	Insur- ance Com- panies	Other In- vestors	All except Govern- ment	Federal Reserve, etc.*	All In- vestors
Within 1 Year	22.3	0.3	0.7	13.0	36.2	9.8	46.0
1 to 5 Years	16.0	0.6	1.6	4.4	22.5	1.7	24.2
5 to 10 Years	17.2	2.3	3.3	5.7	28.6	1.4	30.0
10 to 20 Years	3.4	2.2	5.1	4.8	15.5	1.3	16.8
After 20 Years	0.9	1.3	4.7	4.1	11.1	1.5	11.6
Total	59.8	6.7	15.4	32.0	113.9	15.7	129.6
Securities Due or Callable:	Amounts Held November 30, 1942						
	Com- mercial Banks	Savings Banks	Insur- ance Com- panies	Other In- vestors	All Except Govern- ment	Federal Reserve, etc.*	All In- vestors
Within 1 Year	10.2	0.3	0.5	3.7	11.6	2.1	16.7
1 to 5 Years	10.5	0.7	1.8	4.5	17.4	2.5	19.9
5 to 10 Years	10.5	2.0	2.6	3.1	18.2	2.2	20.4
10 to 20 Years	2.6	0.8	3.8	2.6	9.8	1.2	11.0
After 20 Years	0.7	0.3	0.6	0.7	2.5	0.3	2.8
Total	34.5	4.1	9.3	14.5	62.5	8.3	70.7

* Federal Reserve Banks, government agencies and trust funds.

In the last eighteen months, there has been an interesting shift of insurance companies into bonds of long maturity. (See Table I.) With 60 per cent of their bonds having a duration of more than 10 years, insurance companies will be in a fairly neutral position with respect to interest rates as far as their old business is concerned and they would stand to gain on their new if interest rates were to rise. This must be modified by the realization that their non-governmental assets are probably of shorter duration.

Final conclusion: *each insurance company, all companies together, and the families who hold or buy insurance would not be hurt by an increase in interest rates. On the contrary, they would be made really better off, regardless of misleading comparisons of present or market values.* If properly computed along the lines indicated above, present value could be shown to bear out this conclusion.

III

I turn now to the case of the banks, particularly the system as a whole. Let us assume the following specific permanent change in the interest rate structure on government bonds:

Duration to maturity	Assumed average duration	Old rates per annum	New rates per annum
1 year or less	.33 years	0.5%	1.5%
1 to 5 years	2 years	1.0%	2.0%
5 to 10 years	7 years	2.0%	3.0%
10 to 20 years	14 years	2.0%	3.0%
over 20 years	22 years	2.0%	3.0%

This is intended only as an hypothetical example and not as a prediction. The old rates are chosen to be approximately equal to present rates. The new rates represent a flat one per cent increase at all levels. If the present differential between short and long rates can be attributed to a fear that rates will harden, and if after that hardening has taken place there is no further expectation of increase, then it would not be unnatural for the short rates to firm relative to the long rates. Witness the reverse movements from the twenties to the thirties.

Would the banking system be worse off for such a change? Let me ask another question: if the government were to bestow upon the banking system some 60 billion dollars, or what is the same thing under existing rates, grant a perpetual annual subsidy of .6 billion dollars, would the banking system be better or worse off? Would bank stocks—which for some city banks are already beginning to sell for more than the book value of capital plus surplus—go up or down in price? Would public confidence in banks rise or fall? Over a period of years would the capital structure of banking be more or less sound?

Or let me pose the question in another way. What if all banks were to subscribe 2 billions to a perfectly safe but non-negotiable term loan, to be paid back in equal installments over three years' time and to yield a rate of compound interest of some 15 thousand per cent per annum! Would any sane bank examiner rule that the non-negotiability of such

a loan, which amounts to less than 2 per cent of all bank assets, overweighs the fabulous return on a safe investment?

To ask such questions is to answer them. Any one of these alternatives would involve the greatest boon in history to the commercial banks, with the possible exception of the stimulus to bank earnings provided by World War II, a stimulus which will not be confined to the war years as in the case of most war producers.

Yet the relatively moderate, permanent increase in rates considered above is essentially equivalent to either of the above alternatives! Only the intricacies of bookkeeping prevent this from being seen.

But what about the collapse of capital values when rates harden? Will not an average doubling of interest rates wipe out 50 per cent of

TABLE II

Securities Due or Callable:	Ratio of New Capital Value to Old	New Yield on New Base	New Yield on Old Base
Within 1 year	.997	1.5%	1.50%
1 to 5 years	.981	2.0%	1.96%
5 to 10 years	.938	3.0%	2.81%
10 to 20 years	.887	3.0%	2.67%
after 20 years	.841	3.0%	2.52%

the value of securities held? Even if it did, we have seen in the previous cases the irrelevance of *present value* as traditionally computed, and I shall show it to be equally so for the banking system. But we need not fall back on this theoretical argument.

Applying the usual bond tables and formulas to a portfolio of the composition given in Table I, we find that its capital value will fall only 3 per cent in going from the old to the new rates. Maintainable net income from governments, however, will almost double even if shorts and longs are held in the same proportions in the new situation. Table II shows the *new* capital value of each dollar previously invested in each maturity. By weighting these factors according to the required proportions, we can make a similar calculation for any portfolio. The results for each of the groups listed in Table I are indicated below in Table III.

On a capital value reduced only by 3.29 per cent, a bank portfolio will earn a yield of 2.15 per cent, which is 2.08 per cent on its old capital value. This is almost double its previous yield of 1.17 per cent. The corresponding old and new yields are shown in Table III, for all groups.

It is occasionally recognized that higher rates will increase earnings

after old bonds mature and their proceeds are reinvested. This is a relatively slow process. It is rarely realized that immediately after interest rates have risen and capital values have been scaled down, *all parts of the portfolio*, old as well as new, begin to earn higher rates. We must not forget that the earning of a bond is *not* its coupon, but rather its coupon corrected for amortization of bond premium or dis-

TABLE III

Ownership of Securities	Percentage Decline in Capital Value	Dollar Decline in Capital Value (in billions)	Old Average Yield	New Average Yield on Old Base
Commercial banks	3.29%	1.96	1.17%	2.08%
Savings banks	9.11%	0.61	1.84%	2.57%
Insurance companies	10.13%	1.56	1.83%	2.53%
Other investors	5.22%	1.67	1.25%	2.10%
All except government	5.11%	5.83	1.33%	2.18%
Federal Reserve	3.40%	0.53	0.96%	1.86%
All investors	4.91%	6.36	1.28%	2.14%

count. In this case bonds which were previously at par will be at a discount, and true earnings or yield will exceed coupon rates by amortization of bond discount.

If the banking system maintains the same operating expenses and dividend policy, it will be able by ploughing back the new higher earnings to replace the 3 per cent decrease in values *in less than three years' time*—without changing its proportions between longs and shorts expressed in value terms. This does not mean that in three years' time the bank will have got over the damage done them by interest rate increases. There is no such damage; from the very beginning banks are "really" better off; and at the end of three years, they are much better off because the old capital value can be invested to give twice the old yield.

One technical point should be mentioned. In the new situation, banks may not choose to keep the same proportions between longs and shorts. Indeed, with the new capitalizations, *all* investors will not be able to do so in value terms even should they wish to. But if a bank or the banking system should wish to do so, and if the new rates remain as stated, there may have to be some reshuffling of portfolios in which other than new issues are bought.

In the above calculations, we have treated the bank portfolio like any other portfolio. But what is the basis for the widespread opinion that what is true for a university or insurance company is not true for

the banking system? Our fundamental theorem provides a rationalization of the answer: *a rise in interest rates hurts the banking system if the average time period of its inpayments exceeds that of its outpayments.*

But what are the future outpayments of the banking system? If it is assumed each night that tomorrow is the day of judgment, that all depositors may wish to withdraw all their money, then the average period of outpayments is one day, and of course the banking system would be hurt by interest rate increases. In such an absurd world, it would be criminal for banks to have anything but 100 per cent reserves. It is equally absurd to assume that savings banks have an average period of outpayments of 30 days.

It should not be necessary to argue before economists that the banking system is a going concern, and is to be treated as such. But some practical bankers, noting that their own business has gone up during the war, share the common opinion that—along with the business of the butcher, the baker, the candlestick maker—after the war their business will go down. When the war is over, it is not impossible that business activity should decline. But as far as volume of deposits is concerned, banking is one business which cannot go back to its previous level.

Deposits are unmade in much the same way that they are made. Deposits were created in banks by the process of expanding earning assets, largely war bonds. Deposits can only be destroyed if banks lose assets. There are only three conceivable ways in which banks could be expected to lose deposits.

1. After the war, the federal government might run surpluses and retire debt. Even high annual surpluses would require a very long time to make a dent in the huge volume of bank deposits. The most confirmed optimist knows that the quantitative rates of surpluses cannot be a fraction of the rate of wartime deficits, although he may hope for a long period of such surpluses. Realistically, there is as yet little reason to believe that economic and political conditions will be such as to permit rapid debt reduction.

In any case, it will be obvious that reduction via this process will create no problems for bank portfolios. Withdrawals and debt retirement will be linked, with equal average periods.

2. The second way in which deposits might decrease is as the result of a changed preference of the public for cash and security. If individuals should come to prefer government bonds to non-earning bank balances, we could witness in the post-war world a gradual purchase of government bonds by the public from bank portfolios, with a resulting destruction of deposits. This second process is the only one of

the three which seems at all probable, and it must be considered as only a doubtful possibility.

But should it materialize, it would obviously not create difficulties for the banks. They would be losing deposits precisely because of an increased demand for government bonds. Interest rates would then be falling, and banks would be making capital gains rather than losses.

3. If the public should distrust banks and wish to hoard cash, deposits would of course decrease. It may be stated pointblank that such a contingency will not materialize, and cannot materialize. Not only does deposit insurance greatly decrease the chance of its happening, but also any sensible conception of public responsibility would envisage drastic use of Federal Reserve and governmental powers to prevent such a situation from developing, and to meet it should it develop. Realistically, banking experts anticipate that peace will cause a reverse flow of currency back to the banks.

The reader may work out for himself the details of the case where the public develops a desire for securities other than governmentals and attempts to use up its deposits in such purchases. Government bond yields could harden but bank outpayments would not increase.

Legalists and bank examiners nevertheless will still worry about the instantaneous effects of higher interest rates on capital values. Balm may be found for them in the following considerations: government securities may be carried at cost rather than market; capital surpluses may be large enough to absorb a 3 per cent drop in portfolio book value; bank stockholders, confronted with the possibility of doubled earnings, will be in a receptive mood to subscribe to new stock issues to meet any deficiencies in *apparent* capital;² in special cases, the government may aid where it is in the public interest to do so. *Conclusion: the banking system as a whole is immeasurably helped rather than hindered by an increase in interest rates. Indeed, it receives much greater benefit than either universities or insurance companies, and commercial banks would profit more than savings banks.*

IV

Since the line of thought and conclusion are fairly obvious, the reader may work out the details of the argument as applied to individual banks. Let him consider the case of a boom-town bank in (say) Bath, Maine or Portland, Oregon; the case of New York banks; the case of rural banks; etc.

² Some city bank stocks are already selling for more than book and market value of the capital account.

It will be seen that problems of bank examination with respect to government securities do not disappear completely. But it will be equally clear that they are to be determined within the framework of a *realistic* appraisal of benefit and harm.

V

Sometimes right policies are followed for the wrong reasons. Not long ago I was privileged to hear a public address by a distinguished American economist, in which he argued in favor of the use of a tight money policy to control a post-war boom. He was immediately pounced upon by *all* his colleagues, and his argument was completely damned by the assertion that such a policy would create great difficulties for the banking system because of its holding of governments. Perhaps the critics argued with tongue in cheek, hoping to gain support for the perfectly sound and eminently desirable policy (of preventing high interest rates) by a faulty but effective argument. And perhaps silence is maintained on the obvious true analytic relationship between interest rates and bank positions by tacit agreement not to debunk a shibboleth which happens to be conducive to correct policy.

Why, then, do I now give away the secret which all wise men know but which no wise man will tell? First, I plead the usual excuse of all scoundrels: if I don't tell, somebody else will, and I at least can make certain that the antidote is given at the same time. Second, if rightly interpreted, it will be seen that mine is an argument against interest rate increases, not one in favor of them. They imply *enormous*, unneeded, unnecessary, undesirable, and arbitrary gifts to certain investors at the expense of the Treasury. In addition, their long-run harmful effects greatly outweigh, in my opinion, the doubtful minor benefits in controlling a hypothetical situation, which can in any case be better handled in other ways, even within the framework of banking policy. I shall not dwell here on the considerations which make it seem likely that the post-war epoch will witness even lower rates than the present.

Finally, and most important, the fancied difficulties arising from a hardening of rates is now being used as an argument against the lowering of rates, on the grounds that there will be great harm if they have to be raised later. I hope to have demonstrated the weakness of this argument.

In truth, the United States Treasury and Federal Reserve have missed a great opportunity. This war is a 2-per-cent war. *It should have been a one-per-cent war.* Literally, nobody has argued that the

interest rates offered have had any substantial effect upon private consumption or investment in a war world of direct controls and inflationary gaps. They may have had some minor effects upon the form in which wealth is held, but to explore the fancied advantages and disadvantages of these would require another, equally long paper.

I hope I am giving away no secret when I say that the American authorities have in this (fortunately relatively unimportant) sphere pursued an uninspired policy whose full implications will be felt for a long time to come. May we hear from the wise men on this subject?

COMPENSATING REACTIONS TO COMPENSATORY SPENDING

By L. ALBERT HAHN*

In the plans for maintaining full employment after the war that flood the country, governmental "compensatory" spending plays a major rôle. Only a few proposals mention the question of adjustment that was so prominent in the earlier literature on the liquidation of booms. Most planners do not recognize the paramount importance of the wage level for employment. If they see it at all, the importance given wages in sustaining a high effective demand far overshadows the importance given them as a cost factor. To be sure, there is an opposition. To it adjustments remain a major problem, and compensatory spending in an unadjusted economy seems of highly doubtful value. But in view of the overwhelming number and influence of those who favor "spending without adjustment"¹ and the appeal of their plans to laymen, the opposition must be considered "voices in the wilderness."

To anyone watching the trend of economic thought in this country the situation is not astonishing. It is just an outgrowth of the general acceptance of Keynesianism. For, although some planners are distinctly out-keynesing Keynes in a way that Lord Keynes himself would surely reject,² the planners' basic attitude is distinctly an application of Keynes's *General Theory of Employment, Interest and Money*.³ According to this theory, employment can, "as a rule" and "in the general case," be raised or restored by raising effective demand to a sufficiently high level. Why, then, should there be any need for a painful adjustment process?

In the following pages this author tries to explain what seems to him to be the fallacies not merely of some of Keynes's implications but also of the general assumption underlying the entire system. In doing this

* Before coming to the United States in 1941, Mr. Hahn was a banker in Frankfurt-am-Main and an honorary professor at the University of Frankfurt.

¹ For a good survey of the post-war full employment plans, see Albert Halasi, "Survey of Recent American Literature on Postwar Security," *International Postwar Problems*, Vol. I (1943), pp. 120-138.

² Cf. Abba P. Lerner, "Functional Finance and the Federal Debt," *Social Research*, Vol. 10 (1943), pp. 38-51.

³ John Maynard Keynes, *General Theory of Employment, Interest and Money* (London, 1936).

the author is in a somewhat peculiar position. For in his *Volkswirtschaftliche Theorie des Bankkredits*,⁴ as early as 1920, he advanced a "credit expansion theory of employment" very similar to that of Keynes. In the third edition (1930),⁵ however, he modified the original thesis essentially. The reasons that seemed to him to prove the original thesis untenable were similar to those put forward in this article.

I. *The Illusion Effect of Monetary Manipulations in Creating Employment*

Lord Keynes contends that "as a rule" and in the "general case" an expansion in "effective demand" increases employment as well as prices. "Effective demand spends itself partly in affecting output and partly in affecting price."⁶ The reason is—to put Keynes's argument in the simplest form—that additional labor can be used profitably despite its diminished marginal productivity. This, in turn, is because "the decreasing return from applying more labor to a given capital equipment has been offset by the acquiescence of labor in a diminishing real wage."⁷ And labor acquiesces in a diminishing real wage, because usually ". . . the supply of labor is not a function of real wages. . . ."⁸ For "it is not their [the workers'] practice to withdraw their labor whenever there is a rise in the price of wage goods."⁹

However, "a point comes at which there is no surplus of labor available at the then existing real wage."¹⁰ As soon as this point is reached, the supply price of labor is fixed in accordance with the declining pur-

⁴ L. Albert Hahn, *Volkswirtschaftliche Theorie des Bankkredits* (1st ed., Tübingen, 1920). An extensive description of my theories, their effect, and their development by others can be found in Howard S. Ellis, *German Monetary Theory, 1905-1933*, Harvard econ. stud., Vol. 44 (Cambridge, 1934).

I have added on the following pages after the quotations from Keynes's *General Theory* the number of the pages of my *Volkswirtschaftliche Theorie*, 1st ed., on which corresponding quotations may be found. Besides those mentioned in this article, my book contained most other fundamental assumption of Keynes in striking similarity, e.g., that unemployment originates in consumption deficits (*Volkswirtschaftliche Theorie*, 1st ed., p. 148), that the saving-investment flow is frequently interrupted (*ibid.*, p. 147), that interest rates are the price for the loss of liquidity (*ibid.*, p. 102), that liquidity preferences are dependent on subjective influences (*ibid.*, pp. 59, 60).

Remarks on my priority can be found in Gottfried Haberler, *Prosperity and Depression*, (Geneva, 1939), p. 15, note 2, p. 205, note 3; and Wilhelm Lautenbach, "Zur Zinstheorie von John Maynard Keynes," *Weltwirtschaftliches Archiv*, Vol. 45 (1937), pp. 493-525, particularly p. 512, note 2.

⁵ L. Albert Hahn, *op. cit.*

⁶ Keynes, *op. cit.*, pp. 13, 3, 285 and, in a slightly different wording, p. 296; (Hahn, *op. cit.*, pp. 135, 146, 140, 141, 149, footnote.)

⁷ Keynes, *op. cit.*, p. 289, and in a different wording, p. 284.

⁸ *Ibid.*, p. 8.

⁹ *Ibid.*, p. 9.

¹⁰ *Ibid.*, p. 289.

chasing power of wages. In other words, the supply curve of labor in terms of money wages moves upward with prices which rise because of the expanding effective demand. From this point on no additional unit of labor can be applied profitably. The "crude quantity theory of money" once again functions. "Output does not alter and prices rise in exact proportion to [the quantity of money]."¹¹

This is doubtless a correct picture of the process of monetary expansion. It is generally agreed that monetary expansion in its first phases increases employment. But from a certain point on, which we may call the "reaction point," reactions on the side of the productive factors compensating the effect of credit or money expansion will set in, and prevent a further rise in employment or even bring about a decline.¹² And this will be true even in the case not mentioned by Keynes—when price increases should have been avoided, diminishing unit costs offsetting the effects of diminishing marginal efficiency of labor. In this case entrepreneurs derive extra profits which labor, from a certain point on, will claim for itself,¹³ just as it claims for itself, and with success, the increments technical progress brings to its productivity.

Where lies the difference between Keynes and the classical attitude? Keynes assumes that the period before the "reaction point," the period free from "compensating reactions," is so long and general that it is characteristic of "the economic society in which we actually live,"¹⁴ and thus a sufficient basis for a "general theory of employment." The classicists, on the other hand, consider the "reaction-free" period as usually short and occurring only exceptionally. This apparently unimportant difference in factual assumptions is, as far as I can see, responsible for all the wonders of the Keynesian world so paradoxical to classical thinking.

What prevents labor during the "reaction-free period," whether short or long, from raising its demands for money wages to correspond with

¹¹ *Loc. cit.*

¹² The experience of the last phase of the German inflation illustrates this point. From about the middle of 1922 on, wages were made sliding according to the sinking purchasing power of money (*Gleitloehne*). As a result, employment no longer rose, but even declined. Inflation spent itself in price rises. For it is one question whether goods already fabricated are purchased at higher prices, and another whether new goods are fabricated. The latter depends on production being more profitable, *i.e.*, wages and other costs not rising as fast as prices; a fact quite obvious though often forgotten in the wake of the spending enthusiasm of our time.

¹³ Sumner H. Slichter, "Labor after the War," in Harris, *Postwar Economic Problems*, (New York 1943), pp. 241-262: "Union wage policy will tend to keep the prospect for profits unfavorable, because unions will press for wage increases despite the continuation of price controls" (p. 245).

¹⁴ Keynes, *op. cit.*, p. 3.

its declining purchasing power and/or the profits resulting from increased sales? After all, men work for food, clothing, etc., not for pieces of paper, even if dollar amounts or other denominations are printed on them. Keynes does not answer the question; he merely states the facts so important to his system. It is a complicated sociological economic problem that is at stake. But one thing seems certain. If, during the "reaction-free period" labor does not insist on money-wage increases, it is not because it wishes to receive lower real wages. It can only be because it does not, or does not immediately or fully, realize what is happening when prices begin an inflationary rise. What works is the phenomenon Professor Irving Fisher described in his famous book *The Money Illusion*¹⁵ and what we may therefore call the "illusion effect" of monetary manipulations.

II. *The Illusion Effect Inducing Investment*

According to Keynes's theory, a larger effective demand, leading to a higher level of employment, will depend, given a certain propensity of the community to consume, on the amount of current investments. "The amount of current investment will depend, in turn, on what we shall call the inducement to invest; and the inducement to invest will be found to depend on the relation between the schedule of marginal efficiency of capital and the complex of interest rates on loans of various maturities and risks."¹⁶ So by lowering the interest rate, investment and effective demand can be increased.

Increasing effective demand through lowered interest rates is what European writers used to call "inflationary credit expansion." It depends not on any spontaneous decision of the community to save more, but on the will and capacity of the banking system to expand the amount of credit and the quantity of money. According to the classic approach it is a case of monetary manipulation.

A downward monetary manipulation of interest rates will undoubtedly induce an increase in investments and effective demand, especially as "rising prices . . . will redistribute incomes to the advantage of the entrepreneur and to the disadvantage of the *rentier*,"¹⁷ and as this is equivalent to a further decline in the interest rate or even to a negative interest rate. But just as in the case of lowering wages through monetary manipulation, investments are induced only before the "reaction point" is reached. Then the productive factors whose rewards, although

¹⁵ Irving Fisher, *The Money Illusion* (New York, 1928).

¹⁶ Keynes, *op cit.*, pp. 27-28. (Hahn, *op. cit.*, 1st ed., pp. 132, 137.)

¹⁷ Keynes, *op. cit.*, p. 290. (Hahn, *op. cit.*, 1st ed., p. 137.)

nominally unchanged, have really been lowered will react. As soon as the supply curve of credits is raised in accordance with the decreasing value of money, the investment-inducing effect of interest manipulation disappears. Similar developments which can, incidentally, be observed during every business cycle, are the basis of all monetary cycle theories of the Wicksellian type.

That the illusion effect of money prevents compensating reactions at first was demonstrated drastically during the great German inflation. Until about the middle of 1922 the majority of the population, especially the creditors, were not aware of what was happening. They were deceived by the "illusion effect." Loans were still offered in ample quantities and at low rates. When the creditors were no longer taken in by the money illusion, they raised their demands for interest to fantastic levels, wishing to be compensated for the decreasing purchasing power of their money during the lending period. The Reichsbank, thinking it should not tolerate this healthy compensating reaction, tried to keep the rates down by maintaining a ridiculously low discount rate. This low discount rate was one of the chief reasons for the runaway character inflation in Germany assumed in 1922.¹⁸

III. *The Illusion Effect of Government Spending*

If the manipulation of interest rates downward does not induce sufficient investment, and it probably will not, compensatory deficit spending by the government is recommended. "The State which is in a position to calculate the marginal efficiency of capital-goods on long views and on the basis of the general social advantage," has, as Keynes says, to take "the responsibility for directly organizing investment."¹⁹

In the case of government spending, too, investment and employment increase because the supply price schedules of the productive factors have, through manipulation, become "really" lower than they seem. Here, too, sooner or later the point is reached where compensating reactions prevent further improvements, or even reverse already achieved improvements. Until then it is the illusion effect of monetary manipulations that prevents compensating reactions.

When the efficiency of a further unit of capital is too small to cover the interest charges, private enterprise refrains from new investments. If governments can invest where private enterprise cannot, it is not because capital is supposed to be more efficient in its hands.

¹⁸ Cf. L. Albert Hahn, *Geld und Kredit* (Tübingen, 1924 and 1929), and *Unsere Währungsfrage im Lichte der Geldtheorie* (Frankfurt/Main, 1924).

¹⁹ Keynes, *op. cit.*, p. 164. (Hahn, *Volkswirtschaftliche Theorie*, 1st ed., p. 151.)

(Professor Hansen, for instance, warns against "timidity" and urges consideration of a 50 per cent recovery of principal—not of interest!—as a sufficient return on invested capital.²⁰) It is because the interest rates charged the government are much lower than the market rate, or, if capital is allowed to be 50 per cent unrecoverable, even negative. A negative interest rate means that the entrepreneur does not have to make payments but receives payments from those who lend the capital. This is just what happens in government deficit spending through shifting of the deficit in one way or another to the community which becomes liable for the amounts.

What bearing the liability will have on the economy depends on whether and to what extent the members of the community have to redeem it by tax payments. Distinction is made in this respect in literature between the liability for interest and for the principal.

Sooner or later the day must come when interest no longer can be paid through issuing new government securities, but has to be paid out of taxes. This happens either when private investment is picking up so that government deficit spending has to be discontinued entirely in order to check an excess of effective demand;²¹ or it happens, at the latest, when the public refuses to take over the ever-increasing public debt. *i.e.*, when what can be called the saturation point for government securities is reached.

If interest on the public debt has some day to be met by taxation, it will mean a heavy burden on post-war America. For it would come on top of taxation for interest on the war debt, which alone will swallow a substantial part of national income. Nor can, incidentally, the tax burden be minimized by pointing to the growth of the economy which will reduce the ratio of the debt to the national income. The inherent weakness of the "growth argument" is that it assumes the "growth" to be, so to say, natural,²² whereas it depends to a large degree on economic conditions and will probably never materialize if employment is made dependent upon government spending for any length of time. It is furthermore forgotten that the enlarged future economy will have its own larger problems, be they war, unemployment or others. It does not therefore seem permissible to mortgage the growth.

The "only-the-interest" argument in contemporary literature on government spending, is used to such an extent that the impression is

²⁰ Alvin H. Hansen, "The Postwar Economy" in Seymour E. Harris, *Postwar Economic Problems* (New York, 1943), p. 23.

²¹ Cf. Lerner, *op. cit.*, p. 43.

²² Cf. Joseph Stagg Lawrence, *Empire Trust Letter*, No. 6, p. 5 (New York, Empire Trust Company, 1944), for a good refutation of the "growth argument."

created that only one-fortieth part of every deficit ($2\frac{1}{2}$ per cent of the capital) is the real burden, whereas the principal can be forgotten as a gift.²⁸ Obviously by using this argument the beneficial effects of spending are made to compare very favorably with the ensuing burden.

However, the "only-the-interest" argument is tenable only if spending can be discontinued because private spending has picked up. The argument is not tenable in the case of spending continued indefinitely in order to counteract a chronic tendency to unemployment.

A curve representing the amounts of bonds or money accumulated by the public does not mount steadily to a saturation point, to run horizontally thereafter. Curves representing data which depend on psychological factors, such as confidence in business prospects, in the value of the currency, and in the future level of prices, never remain on a plateau but rise and fall according to the laws of action and reaction. In other words, once deflationary tendencies are relieved through inflationary tendencies, it becomes highly probable that—through the unloading of previously accumulated money and government securities—deflation turns into inflation, not into stabilization.

What must be done to prevent runaway inflation at such a time? It is not sufficient simply to stop further deficit spending. Certain amounts of existing public debt become due, and these amounts will be the larger the smaller the portion of the debt which has been consolidated to longer terms. Suddenly, what seemed a gift for eternity is transformed into a real loan. The bill must at last be paid. In addition to taxation covering all public expenditures business will then face the burden of high interest rates. For, in order to stem the demand of those who want to profit from the dwindling purchasing power of the currency and therefore borrow from the banks, interest rates will have to be raised. This also hurts legitimate enterprise. In short, a very severe deflation crisis will occur.

The result of all this is that interest on the public debt must be met by taxation. The principal, or at least parts of it, will also some day become a tax burden if government spending is permanent. If this is so, government deficits mean for the economy that net wages, net profits, and net interest received by the factors of production are really lower than their gross earnings. For from gross earnings the amounts should be deducted that will have to be paid as taxes in the future and thus represent a mortgage on present income. Owing to the illusion effect, this is not at once realized.

²⁸ Cf. Harris, in Harris, *op. cit.*, pp. 172 ff.; also Alvin H. Hansen and Guy Greer, "The Federal Debt and the Future," *Harper's Magazine*, Vol. 184 (1942): "The internal debt of a government need never be paid" (p. 492).

There is no miracle in government spending. The fundamental fact remains that investment and employment increase only when the supply schedules of the contributors are lowered in real terms. The difference is merely that government spending effects the reduction indirectly and unobtrusively, as do every inflation and monetary manipulation in general.

Incidentally, our analysis shows not only why the alleged "secular stagnation" of the economy, caused by insufficient profitability of new capital investments, can be overcome by government investment, but it also shows that insufficient opportunities of capital investment can never be the reason for lasting unemployment—even if the "maturity" of the economy were proved.²⁴ For if investment becomes possible where the prices of the productive factors are lowered, excessive factor prices and not the low "efficiency" of capital are the secular cause of unemployment. Low efficiency of capital can explain why no new unit of capital is applicable to a given amount of labor, but not why no new unit of labor is applicable to a given capital. Even if the capital structure cannot be deepened, labor can be employed and savings utilized at the prevailing depth of the capital structure, if only labor is not more expensive than corresponds to its marginal efficiency. This has been recently restated with great clarity by Professor Pigou.²⁵

When employment is created by means of governmental deficit spending, the day will come when people realize that the real rates of earnings have been reduced and they will demand higher rates. Labor will not be satisfied with the prevailing wage level, less capital will be offered at the prevailing interest rate, and less entrepreneurial activity at the prevailing profit rate. All supply price schedules will move upward. Which of these upward movements will be the strongest depends upon whether labor, capital or entrepreneurial earnings are expected to be taxed most heavily. The consequences for the structure of the economy are well known; in any case, a further increase in employment will not be possible. And if the government tries to compensate for the compensating reactions by spending still more, again still higher taxes will

²⁴ Cf. Joseph A. Schumpeter, review of Harold J. Laski's *Reflections on the Revolution of our Time*, *Am. Econ. Rev.*, Vol. 34, No. 1 (Mar., 1944), p. 163.

²⁵ A. C. Pigou demonstrates in "The Classical Stationary State," *Econ. Jour.*, Vol. 53 (1943), pp. 343-351, how investments which no longer bore interest again became profitable, when the value of money increased, after workers have been forced to accept lower wages (pp. 349-350). He comes to the conclusion: "I have been concerned to show that in given conditions of technique and so on, if wage earners follow a competitive wage policy, the economic system must move ultimately to a full employment stationary state, which is the essential thesis of the classicals. There can be no question at all that in this event the equilibrium that is attained is stable" (p. 351).

be anticipated, and so on in a vicious spiral.²⁶ All this will happen at the latest when the first taxes to meet the larger government obligations are to be levied.

IV. The "General Case"

The fundamental difference between the classical and the Keynesian employment theory is one of factual assumption, not of theoretical analysis. Lord Keynes assumes that the state of monetary illusion is a normal state; that money wage, interest, and profit demands are normally not altered when the rates of earning no longer represent the same real value. The classicists assume as normal that the money illusion is always and immediately seen through and the supply schedules accordingly revised upwards, because people are interested only in their real, not their nominal income. These writers therefore contend that what they call monetary "falsifications" and even swindle do not really change the amount of employment but only the value of the currency. Thus, the whole question of whether Keynes's theory and its practical consequences are acceptable boils down to this: Does the "illusion effect" of monetary manipulation work so long and so regularly that it can rightly be used as the basis of a *general* theory of employment?

The world Keynes paints is not the real world. To realize this fully one has merely to compare his remarks with any newspaper report about the bargaining policy of labor. Generally and as a rule, whether we like it or not, the "money veil" now-a-days is seen through most thoroughly and clearly. Wage demands do not remain unadjusted, for any length of time, to the sinking purchasing power of money, *i.e.*, to higher living costs. They are demands for "real" wages. As a matter of fact, money wages have not lagged behind prices during the last decade. On the contrary, they have run ahead of prices; labor has succeeded in raising its standard of living because its wages have risen with the increase in its productivity.

*Our conclusion is that the case Lord Keynes regards as the "general" case is in reality a special case, valid only under special conditions and for a certain time. His theory is a special theory of employment for the case when the money illusion works.*²⁷

²⁶ Cf. Sumner H. Slichter, in Harris, *op. cit.*: "The fears which encourage the hoarding of cash may be partly fears of higher taxes, *i.e.*, fears aroused by the deficit itself" (p. 250).

²⁷ There exists, in addition to the incorrectness of his factual assumptions, a methodological reason why Keynes's theory cannot be considered a satisfactory analysis of a stable equilibrium but only of frictional maladjustments: in an equilibrium analysis it is inadmissible to assume that some of the data, the prices of goods, yield to inflation whereas the others, the wages, interests, profits, remain rigid. Either everything or nothing

In the "general case," the equilibrium which the economy attains through monetary manipulations is not real, definite, and stable, as Keynes claims, but at best transitory and dynamic. It yields to a real and stable equilibrium as soon as the supply schedules of the participants in the economic process are adjusted to the changes brought about through the manipulation.

V. Cyclical Versus Stabilized Unemployment

In one special case Keynes's scheme works: in the special case of the recovery phase of the business cycle after the liquidation of the preceding boom. For here, indeed, ideal conditions prevail for the money illusion. Here the demands for interest are still influenced by the memory of the low profits on capital during the depression. Here reductions of real wage are not watched closely and, if recognized, not followed immediately by reactions because real wages have only recently risen through the deflation of prices. And the burden of government spending is not yet taken into account; first, because at the beginning the amounts spent are not substantial; and secondly, because the decision as to which class will have to foot the bill is deferred and everyone gambles on the hope that it is the other fellow who will have to pay.

Consequently, monetary manipulations will be effective in shortening the transition period from a cyclical depression to recovery. Lowering interest rates below the prevailing market rates and governmental deficit spending are defensible, even advisable at this juncture.²⁸ But all this is nothing more than the discount policy, open market policy and fiscal policy recommended as a means of mitigating cyclical movements, long before Keynes, by almost every monetary business cycle theorist.

Now there is no doubt that Keynes's employment theory was conceived during and under the impression of such a cyclical pre-recovery and recovery period. This alone can explain his factual assumptions which are typical for such periods but entirely atypical for other periods. On the other hand, Lord Keynes certainly does not intend his theory to be merely a theory of fluctuations in employment during business cycles; these are treated as a special case toward the end of his work. He deals with the establishment of stable equilibria with larger employment, as distinct from the increase of employment during the dynamic process of the cycle. He means his theory to be, chiefly, a

must be considered as flexible. In the first case the quantity theory is valid; in the latter case we have a sort of regulated economy in which not economic but price- and wage-fixing laws reign over the market.

²⁸ I consider the refusal of the Brüning government to follow a reflationary policy in 1931 the most important cause of the nazi victory.

theory of non-cyclical and thus stabilized, or, to use the European expression, structural employment and unemployment;²⁹ in short, a *general* theory. And it is just and only as a *general* (not as a business cycle) theory that it is original, challenging, and different from the classical. And it is at this point that a phenomenon that is tragic for economic theory and dangerous for practical economic policy arises: what is really a theory of cyclical unemployment is formulated as a theory of structural unemployment. And once formulated, it leads its own life, detached from its premises, and becomes the basis and justification for policies concerning situations for which it is not valid, such as unemployment caused by wages which are structurally too high.

To this case Keynes's scheme is not applicable.³⁰ In other words, neither lowering interest rates nor government compensatory spending is effective when unemployment prevails at a price level that is neither boom-inflated nor depression-deflated. The reason is simply that in this case the illusion effect does not work for any length of time and that the reaction period is therefore very short.

If wages have become structurally too high, it is merely because labor had considered them really too low. Obviously in such a situation rising living costs through monetary manipulation will immediately lead to compensating, and if we may judge by experience, even to over-compensating reactions.

If interest rates are lowered in the case of structural unemployment creditors revise their interest demands upwards. For there is not the slightest reason why creditors should tolerate a redistribution of income to their disadvantage through inflationary credit expansion for any length of time.

Government spending to compensate cyclical unemployment can be stopped as soon as the special factors making for cyclical depression, especially those of a psychological nature, are checked. Spending to compensate structural unemployment has to go on indefinitely. Otherwise the level of effective demand would again be reduced and a deflationary process started, because private enterprise does not invest at the prevailing marginal efficiency of capital.

If government spending goes on indefinitely and therefore represents an ever increasing burden on the community, the day must eventually come when it outlasts and outgrows the illusion effect, which is, by

²⁹ For the distinction between structural and cyclical unemployment, cf. L. Albert Hahn, *Ist Arbeitslosigkeit unvermeidlich?* (Berlin, 1930). The reader will find in this booklet a summary of the views on unemployment expressed in Europe during a discussion which strikingly resembles the one going on at the present time in this country.

³⁰ Accordingly, in the third edition of my *Volkswirtschaftliche Theorie des Bankkredits*, the Interest Theory of Unemployment was developed as a cyclical theory.

its very nature, transitory and limited. Compensatory reactions are inevitable.

It seems to be the tragedy of economic science that psychological phenomena like the money illusion become obsolete when they are discovered. If Lord Keynes has discovered the mechanism of lowering real wages through monetary manipulations, he has at the same time destroyed the working of the mechanism by drawing attention to it.

Only in connection with a policy aiming to adjust, rather than compensate, structural maladjustments will government expenditure be useful in the post-war period. Contrary to a widely accepted opinion, there exists no automatic and mechanical parallelism of spending and creation of employment. Nor do "unexhausted resources" as such guarantee that employment, and not prices, will rise in the wake of spending. If this is not recognized in time, post-war planning, far from bringing about full employment, will delay it by creating the illusion that maladjustments need never be corrected.

THE CORPORATE INCOME TAX AND THE PRICE LEVEL¹

By RICHARD GOODE*

In the course of the current widespread discussions of the proper post-war rôle of the corporation net income tax, it has been asserted repeatedly that the tax may often result in higher prices.² This view is in direct conflict with the conclusion about the incidence of a net income tax which usually has been reached by economists. Since the effect of the corporate tax on prices has an important bearing on an appraisal of this source of revenue, it becomes important to reëxamine the possible effects of the tax on the price level.

Many business men have long been inclined to argue that the tax on corporation profits is passed on to consumers in the form of higher prices. This opinion was expressed most succinctly by Mr. Enders M. Vorhees, chairman of the finance committee of the U. S. Steel Corporation, when he said: "Corporate taxes are simply costs. The method of their assessment does not change this fact. Costs must be paid by the public in prices, and corporate taxes are thus in effect concealed sales taxes."³

This opinion sometimes has found support also in labor circles. Speaking particularly of the war situation, the *Economic Outlook*,

*The author is a fiscal analyst at the U. S. Bureau of the Budget. The opinions expressed are his own and do not reflect in any way the official views of the Bureau of the Budget.

¹ I am indebted to Gerhard Colm and J. Weldon Jones for reading an earlier draft of this paper and making helpful criticisms and suggestions.

² See for examples: Committee for Economic Development Research Committee, *A Post-war Federal Tax Plan for High Employment* (1944), p. 16; Beardsley Ruml and H. Chr. Sonne, *Fiscal and Monetary Policy* (Washington, Nat. Planning Assoc., 1944), p. 11; Harold M. Groves, *Production, Jobs and Taxes*, Committee for Economic Development Research Study (New York, McGraw-Hill, 1944), pp. 23, 28, 72, 105.

³ As reported by *New York Times*, October 10, 1943. On the other side of the Atlantic, the Colwyn Committee encountered a similar belief about the British income tax on the part of business men in its investigation during the middle 1920's. *Report of the Committee on National Debt and Taxation*, 1927, Cmd. 2800, p. 108. However, at about the same time in the United States the National Industrial Conference Board found from a questionnaire to the heads of the 10,000 largest corporations that more than three-fourths of the business executives who expressed a definite opinion on the subject did not believe that the corporate income tax (or the excess profits tax of World War I) resulted in higher prices. *The Shifting and Effects of the Federal Corporation Income Tax*, Vol. I (New York, Nat. Industrial Conf. Board, 1928), pp. 153-54. Similar results were obtained from a more recent but less extensive survey of business opinion. *Effects of Taxes upon Corporate Profits* (New York, Nat. Industrial Conf. Board, 1943), p. 57.

organ of the CIO Department of Research and Education, declared: "Corporate taxes on profits are supposed to be borne by corporation owners. That supposition is almost certainly false. Corporations simply anticipate what their taxes will be and add them to the prices they charge—pass them on to consumers."⁴

After the First World War the then Secretary of the Treasury, Carter Glass, joined business groups and leading newspapers in attributing a major part of the increase in the cost of living to the excess profits tax. He held that, "In many instances it [the excess profits tax] acts as a consumption tax, is added to the cost of production upon which profits are figured in determining prices, and has been, and will . . . continue to be, a material factor in the increased cost of living."⁵

Policy Implications of Incidence

Some working hypothesis about the effect of the corporate income tax on prices is essential for an economic analysis of its impact on savings, consumption, investment, and national income. If corporations are able to pass along the whole tax, or a considerable part of it, to consumers, the result will be to reduce savings much less and consumption much more than if the tax rests directly on corporations and their stockholders. Moreover, if the corporate tax is shifted its significance for investment is a secondary result of the initial reduction of consumption and consequent limitation of the market. If the tax is not shifted its primary influence on investment may be sought in an appraisal of the effect which a lowering of the profit rate will have on incentives.

Also, the incidence of the corporate tax has an obvious bearing on an evaluation of the equity of the tax. To the extent that consumers actually pay the corporate tax in the form of higher prices, the "double taxation" argument so often advanced against it is not admissible. For certainly the corporation income tax cannot be at the same time a burden on consumers and a "double" tax on stockholders. If the tax levied on profits actually falls on consumers, it may be charged with the same inequity as a sales tax but not with discriminating against stockholders. If, on the other hand, the corporate tax comes out of profits and is not passed on to consumers, the issue of "double" taxation of dividend income must be faced.

⁴ January 1944. This argument comes from an organization which has urged heavy reliance on corporate taxes for war finance, while vehemently opposing a sales tax.

⁵ *Annual Report of the Secretary of the Treasury, 1919*, pp. 23-24. See Kenneth J. Curran, *Excess Profits Taxation* (Washington, Am. Council on Public Affairs, 1943), for an interesting account of the debate about repeal of the excess profits tax after the last war. Much of the argument against the tax stressed its alleged upward pressure on prices.

This paper will restate briefly the basis in partial equilibrium economic analysis for the traditional conclusion that a tax on net profits does not affect prices, whatever the character of the market. Then it will consider how closely the federal corporation income tax corresponds to the tax on pure net profits usually treated by incidence theory. The shortcomings of extensions of the traditional type of incidence theory will be mentioned. Next the relation of variations in the level of aggregate demand to the possible effects on prices of the corporate tax will be discussed.

It should be emphasized that the paper does not attempt a complete evaluation of the economic effects of the corporate income tax. Its aim is the more modest one of setting forth the considerations which will govern the price effects of the tax. This is an important preliminary to a more complete analysis. Before final judgment can be passed, the relative effects of the corporate tax and alternative sources of revenue on all the major determinants of the level of national income must be assessed.

Traditional Theory of Incidence

According to the traditional theory of incidence of taxation, a general tax on net profits has no effect on prices. For competitive industries this conclusion usually has been supported by reference to the supposedly crucial rôle of the marginal firm. Competitive price, it is said, is determined by, or at least is equal to, the costs of the marginal firm, which makes no profit.⁶ Because the marginal firm makes no profit it will pay no income tax, and its continued operation and output cannot be affected directly by such a tax. If the output of the marginal firm is not reduced, the output of supra-marginal firms and hence the total supply will not be affected. Since all necessary returns to the factors of production are supposed to be embodied in the costs of the marginal firm, which is not touched by the profits tax, the tax paid by supra-marginal firms is held merely to reduce a differential surplus without restricting production. If there is no curtailment of supply, with a given demand there will be no increase in market price. Since only one price can prevail at any one time in a competitive market, profitable firms cannot raise their selling prices to cover the tax.

To complete the traditional doctrine of incidence, it has been pointed out that a tax on net profits of a monopolist will not alter the full

⁶ Careful statements have avoided the assertion that price is actually determined by the costs of the marginal firm. It has been held rather that the margin is a good place to study the operation of the forces of supply and demand which do determine price. See: Alfred Marshall, *Principles of Economics* (8th ed., London, Macmillan, 1938), pp. 410-11; D. H. Robertson, "The Colwyn Committee, the Income Tax and the Price Level," *Econ. Jour.*, Vol. XXXVII (1927), pp. 566-81.

monopoly price. If a monopolist takes full advantage of his opportunities he will set his price so that, demand and cost considered, the excess of his total receipts over costs will be maximized over time. The net profits tax will not affect costs, hence so long as demand remains unchanged the price which will yield the greatest profits will be the same with or without a profits tax. The monopolist will be forced by the tax to share his gains with the state; if he tries to pass on any part of his tax to his customers he will only make matters worse.

Developments of price theory in connection with the theory of monopolistic or imperfect competition have not altered the basic conclusions reached by the older writers as to the effect of the income tax on supply and price. However, analysis of the equilibrium of the firm with the aid of the modern tools of marginal revenue and marginal costs permits treatment of problems of competition, monopolistic competition, and monopoly in the same framework.

Output of each firm, regardless of the degree of competition or monopoly under which it operates, can be expected to be so determined that marginal cost and marginal revenue are equated. Beyond a certain point successive units of output will add less and less to net revenue, but rationally managed firms will continue to enlarge output so long as additional units add any amount, however small, to net revenue. To produce less would be to forego an opportunity for net gain; to produce more, to worsen the firm's position. The supply produced by an industry is the aggregate of the outputs of all component firms. Supply so determined, along with demand, governs market price. This reasoning is applicable equally to the short run and to the long run, with appropriate variations in the definitions of cost and profit.

From this it follows that, in so far as producers are guided by rational considerations, a tax on net profits, at any rate less than 100 per cent, will not directly affect the volume of output. A tax on profits is not itself a cost of production in any usual sense, nor does it directly influence costs. The tax will reduce the amount which a firm can retain out of the profits added by successive increments of output; nevertheless, any unit which adds to profits before taxes will also contribute something to profits after taxes. The last unit produced by each firm, its marginal unit, will add nothing to profits and nothing to taxes. Thus it will be advantageous for a firm to push production just as far with the tax as it would be if there were no tax. No firm will find the tax it pays a reason for changing its output. Hence the schedule showing the total supply which would be placed on the market by all firms in response to various prices will remain unchanged. So long as demand continues as before, market price will not be altered.

The conclusion that a general tax on true net profits will give no

firm an inducement for restricting its output or a rational basis for attempting to raise its prices is as valid as the price theory upon which it is based. The qualifications that must be attached to this theory of incidence are the same as the general qualifications of that price theory. So far as the actions of individual firms are concerned, most of these qualifications are in some way statements of possible or necessary limitations of the assumption of rational business behavior. This is not the place to explore systematically basic issues of price theory. However, two possible qualifications of the incidence theory should be mentioned.

Monopolists or quasi-monopolists do not always charge the full monopoly price which they could exact. Failure to do so may be due to ignorance or to a certain kind of self-restraint. Monopolists may be content with what they consider "fair" profits (liberally construed, no doubt) and refrain from further price increases. Such a policy may have the rational basis of fear that exorbitant gains will arouse public indignation and perhaps attract the attention of regulatory bodies. It may happen that if the profits of such a firm are reduced by a tax management will be stimulated to reconsider its price policy and to raise prices toward the full monopoly level. It is almost impossible to assess the importance of this possibility. Little is known about actual price policy and the extent to which firms fail to ask all the traffic will bear. It is even harder to say how such firms are influenced by tax considerations.

A second qualification of the incidence doctrine already discussed arises from the possibility that business men may regard a tax on net income as a cost of production. It may be argued that, regardless of whether the tax properly can be classified as a cost, the opinions of business men on the subject will be decisive of business action. Will it happen that substantially all firms will act in informal concert to raise prices to cover the corporate income tax?

It is by no means certain that business men generally do think of the corporate income tax as a cost of production or, if they do so consider it, that this opinion significantly influences their behavior. Comprehensive polls of business opinion on this are lacking, and even if available would be of doubtful reliability. In the past, accounting statements usually have not treated federal corporate income tax as an operating expense but have shown "profit before income and profits taxes" and a separate deduction for income tax to arrive at "net profit after taxes." However, there has been some tendency to modify this accounting treatment during the period of high wartime taxes.⁷

⁷ Symposium, "What Are Income Taxes?" *Jour. of Accountancy*, Vol. 78 (1944), pp. 303-07; William A. Paton, "Adaptation of the Income Statement to Present Conditions,"

The conception of a tax measured by net profits as a cost, which can be included in price, presents some very considerable difficulties. The amount of the tax in the aggregate is never known until after the results of the operations of a fiscal period have been ascertained. In recent years not even the rate of tax to be paid has been certain in advance. Managements determined to recover the tax by means of higher prices will be forced either to estimate in advance quantity of sales, costs, profits, and tax; or to try to recover currently the tax based on the operations of a previous period. Of course, it will be evident to any business man that increasing his prices will reduce the quantity he can sell and thus will affect unit costs. Moreover, if the tax on net profits is a cost it is indeed a strange kind of cost. It is a "cost" which rises with success but automatically disappears when operations are unsuccessful.

Competitive conditions, it must be admitted, in only a relatively few industries are such that individual firms must be guided entirely by a single price impersonally established by market forces. Nevertheless, if there is some possibility of exercise of judgment as to prices, the price policy of the individual firm is closely hedged about. Wherever fairly close substitute products exist and something less than pure competition prevails, business men will be restrained in raising their prices by uncertainty as to how their rivals will react to the tax and to a price increase. It is common knowledge that in many industries a considerable part of the total supply is produced each year by firms which make no profits and hence pay no tax. Among profitable firms the tax allocable to each unit of output will vary greatly depending on the profitability of the firm. If the profits tax is restricted to corporations, additional difficulties in the way of shifting arise. In trade and some other industries, corporate producers must face the serious rivalry of sole proprietorships and partnerships, not subject to the corporate income tax. Profitable corporations cannot raise their prices to cover the corporate income tax without risking loss of the market to their less successful rivals, to unincorporated businesses, or to other corporations managed by business men who do not regard the tax as a cost.

In considering the difficulties of marking up prices to try to cover a corporate income tax, it should be remembered that such behavior is in most cases irrational according to the standards of conventional economic theory. Quite aside from the danger of loss of the market to rivals and difficulties of forecasting, the effort to recoup the tax

Jour. of Accountancy, Vol. 75 (1943), pp. 12-13. The case of public utilities is perhaps exceptional because of developments stemming from the Supreme Court decision in *Galveston Electric Co. v. Galveston*, 258 U. S. 388 at 399 (1921).

usually will be self-defeating. Imposition of an income tax gives the individual corporation no more control over the market than it formerly had. Higher prices can still be had only at the expense of fewer sales. Except for the case of the monopolist who previously has chosen self-restraint to avoid regulation, the tax will give managers of an individual corporation a rational basis for raising prices only if they believe that their rivals will be led by the tax (irrationally) also to raise prices. However, one likely result in such an event will be merely to spread losses among several firms instead of concentrating them on one price-raiser.

The possibility that business men may regard a tax on profits as a cost of production and attempt to raise prices to cover the tax appears to be no more than a possible qualification of a theory of incidence, the exception and not the general rule. To support a different conclusion would be to presuppose a great degree of uniformity of thought and action by business men and the dominance of business decisions by non-rational considerations. It is difficult to say just how much importance should be attached to this qualification of the traditional incidence theory. A later section of this paper will argue that any widespread effort to pass on a general profits tax is unlikely to result in a permanently higher price level. Nevertheless, such an attempt might have other important consequences for the economy.

The traditional argument that a tax on true net profits has no direct effect on output or prices is simple. With the qualifications already mentioned it is entirely convincing. Unfortunately the theory settles nothing about the effects of a particular tax. Before the conclusion drawn from the general reasoning can be applied to an actual tax it must be determined that the tax is in fact on pure profits or economic surplus and not on elements of necessary cost. In considering this question I shall focus attention on the federal corporation income tax (normal tax and surtax) without reference to special problems associated with the excess profits tax or other forms of corporation taxes. Moreover, my concern will be with the effects of the federal corporation tax in peacetime and not with conditions which may be peculiar to the war period.

A Tax on Surplus or on Costs?

The federal corporation income tax is imposed on "net income," which is defined as gross receipts from operations minus certain specified deductions. Both receipts and deductions may be accounted for in purely cash terms or on an accrual basis by conventional accounting methods. A great body of statutes, regulations, and court decisions rigidly defines the items to be included in receipts and deductions. The allowable de-

ductions are those conceived to be the "ordinary and necessary" expenses of acquiring the taxpayer's income.⁸

Superficially at least, corporate "net income," as used by the authors of the tax statutes and regulations, corresponds closely to "net profit" or surplus in the language of the economists. For in economic terms, net profit is the surplus of a firm's money receipts over its costs. Costs, in turn, are defined for the individual firm as the money payments required to secure the services of the factors needed for any given volume of output. Tax-exempt income aside, the main source of possible divergence between the theoretical and the statutory concept of corporate net profit or income lies in the scope of deductions from gross income, or costs. If the legal and the economic definition of costs are identical, or if the legal definition is broader than the economic, the major assumption underlying the conclusion that a tax on profits does not directly affect the volume of production is sustained. The federal corporation income tax under these conditions will be in practice the levy on surplus treated in theory by the economists.

A somewhat fuller inquiry into the nature of the concept of costs as used in economic theory and in tax law is required. This discussion may be conveniently, and conventionally, divided between the short run and the long run. The short run is technically defined in Viner's language as a period "long enough to permit of variations in output through more or less intensive utilization of the relatively fixed elements of a plant but not long enough to permit of any adjustment in the scale of the plant."⁹ In the long run, any desired change in scale of plant technologically possible may be made, and under competitive conditions new firms may emerge.

Short run. The costs which are relevant for determination of output in the short run are direct costs—outlays which vary with the volume of current production. The tax law does permit deduction of all such short-run variable costs, and more, in arriving at net income. No question is likely to arise because all such costs are either contractual or can easily be made so. Even stockholders who directly manage small close corporations may be paid reasonable salaries, which will be allowed as a cost to the corporation.

Thus it appears that in the short run the tax definition of costs in the federal income tax law is broader than the economic delimitation

⁸ *Internal Revenue Code*, Sec. 23 (a) (1) (A). The definitions in the text ignore many subtleties of tax law having to do with the distinction between income and return of capital, etc. Also omitted is the fact that for tax purposes certain types of receipts, e.g., interest on tax-exempt securities, are *excluded* from gross income and hence never come within the purview of the tax.

⁹ Jacob Viner, "Cost," *Encyclopaedia of the Social Sciences*, Vol. IV (New York, Macmillan, 1931), p. 469.

of necessary costs which determine output. Hence it follows that the tax is in fact a levy on surplus in the short period. In the short run the tax itself gives no rationally managed firm an inducement to reduce its output. So long as demand remains unchanged, no other output will yield a greater profit net of income tax than that output which was most advantageous before the tax was imposed. This generalization is valid whatever the degree of competition or monopoly.

Long run. In the long run, when scale of plant may be adjusted, the distinction between fixed and variable costs disappears and all costs must be regarded as variable. The first point of inquiry in a study of the effect of a tax on corporate profits on output and prices in the long run is to determine whether proper allowance is made by the tax law for all genuine costs of production.

It is sometimes argued that under conditions of perfect competition or wherever free entry of new competitors is possible, there will be no net profits or surplus above costs in the long run. Thus it is reasoned that any kind of tax imposed on an industry characterized by conditions of perfect competition will be shifted.¹⁰ However, such statements of general tendencies cast little light on the immediate practical problems of the incidence of the corporate income tax. In few if any areas can the possibility of entry of new firms be so confidently assumed that all returns which persist can be safely classified as costs.

Throughout the greater part of the economy, and especially in those sections where corporations are most usual, something less than perfect competition prevails. Producers are not continuously and comprehensively disciplined by the immediate threat of an oncoming horde of new firms which will force them to produce without profit (or at least with no more than "normal" profit), however much they may wish to eschew that Spartan course. Nevertheless, even under conditions of monopolistic competition, some theorists hold that surpluses will be imputed to the scarce factors of production upon which the existence of these surpluses depends, and profits will be reduced in the long run to zero.¹¹

The corporate income tax, however, strikes an institutional return which seems more widespread and more persistent than the temporary residuals left by the process of continuous readjustment and innovation in the economy. Does this institutional return, called "net profit" by the accountants, consist entirely of some form of economic surplus—

¹⁰ Cf. Albert Meyers, *Modern Economics, Elements and Problems* (New York, Prentice-Hall, 1941), pp. 542, 544.

¹¹ See Robert Triffin, *Monopolistic Competition and General Equilibrium Theory* (Cambridge, Harvard, 1941), chap. V.

rent or quasi-rent or "pure" profit—or does it include important elements of cost?

The federal corporation income tax allows deductions for direct costs of operation and also for recovery of capital assets. Interest, however, is deductible only if it is a contractual obligation, no imputed interest on equity capital being allowed as a cost. Nor is imputed rent on scarce factors of production owned by the taxable firm treated as a cost. Moreover, the tax law does not consider as a cost a reward for bearing of uninsurable risks. Upon the basis of these three omissions must rest the case for saying that the corporate tax is a tax not only on pure profits or surplus, but also on elements of necessary cost.

From the point of view of a corporation as a going concern, without regard to the necessity of securing additional funds by sale of its securities to the public, the fact that the federal corporation income tax law does not allow as a cost imputed interest on equity capital or rent on scarce resources owned by the corporation should not have the long-run effect of reducing use of such capital or other resources. When the owning corporation uses its resources in its own business operations, the income from these resources becomes a part of profits and is taxable as such. Income derived from any alternative use of the assets would be equally taxable to the owning firm.

The failure of the tax law to make a cost allowance for bearing uninsurable risks may be more serious. As Lerner and Domar and Musgrave have demonstrated, if an adequate allowance for deductions of losses from taxable income (current, future or past), is made, the percentage return on the net amount at risk is not reduced by a proportionate income tax.¹² In the past the federal corporate income tax has not permitted a full allowance for loss offsets because of the restricted opportunities for carrying forward losses.

When the necessity of financing from outside sources is taken into account the effect of the corporation tax on sale of securities must be considered. The prospect of some minimum return is necessary to induce investors to purchase securities. In so far as outside financing is required, such a minimum return, or at least conditions which lead to its expectation, may be regarded as a necessary cost of doing business. The liquidity preference rate of individuals sets a lower limit to the expected return necessary to induce them to buy securities of any kind. Moreover, the prospective rewards from ownership of stock must be sufficient to compensate investors for the risk of loss of their prin-

¹² A. P. Lerner, "Functional Finance and the Federal Debt," *Social Research*, Vol. 10 (1943), pp. 45-46; Evsey D. Domar and Richard A. Musgrave, "Proportional Income Taxation and Risk Taking," *Quart. Jour. Econ.*, Vol. LVIII (1944), pp. 388-422.

capital. Since under present law, capital losses on securities are deductible from other kinds of income only to a limited extent, while dividends are fully taxable at graduated rates, the government does not share the risks incident to purchases of securities to the same extent it does the risks of real investment by corporations. To the degree that the corporate income tax cuts into the necessary minimum return it will reduce the amount of securities which can be sold under any given circumstances. This in turn will limit the capital available to corporations and may also limit output under certain conditions. The limitations of capital may involve either absolute inability to sell an adequate volume of securities or a worsening of the terms on which securities can be sold. The importance of the effect of the tax on the securities market in any given period will depend on the requirements for capital from new security issues as compared with funds from internal sources. In the abstract, the direct qualitative influence of the tax is clearly to limit output and, according to usual reasoning, to increase prices.

When an effort is made to assess the quantitative importance of such considerations on production and prices, the difficulty of applying the traditional type of incidence theory to the long run becomes apparent. For the short run the traditional type of theory argues persuasively enough that the corporate net income tax does not in general exert an upward pressure on prices. For the long run, application of the same type of reasoning suggests that to some extent the tax may restrict investment and output and thus raise prices. However, even over long periods, there is no basis in this theory for saying that all or a major part of the tax has such an influence. Furthermore, a simple conclusion about the price effects of the tax operating through the investment variable is not possible. The quantity of investment is so significant and the effects of variations in its level so destructive of the assumptions behind the conventional incidence theory as to preclude disposing of the long-run effects of the corporate income tax by a tidy deduction running from a restriction of investment to a restriction of output and thence to higher prices. To determine the effect of the corporate tax on output requires a study of the impact of the tax on potential consumption and saving as well as on investment. These effects must be compared with those of alternative sources of revenue and of borrowing. Moreover, the uses to which the government puts the funds it collects cannot be ignored. Finally, the consequences of changes in the aggregate volume of output are likely to result in effects on prices that are the opposite of those usually assumed by extension of the traditional type of incidence theory.

Aggregate Demand and the Theory of Incidence

The traditional type of incidence theory cannot deal adequately with those effects of the corporate income tax which are supposed to operate through changes in investment. This inadequacy is a necessary consequence of the fundamental characteristics of the theory. Incidence theory, as developed by the classicists and their successors, is actually an examination of the effect of a tax on supply. On the assumption of fixed demand and factor costs, this permits conclusions about price. This incidence theory implicitly assumes not only full employment but also constant aggregate demand. It is legitimate to abstract from general changes in employment and demand when studying the price effects of a tax on a particular commodity or on incomes derived from one relatively minor industry or occupation. However, such abstractions cannot legitimately be extended to a tax which covers as important a section of the economy as does the federal corporation income tax. It is plainly inconsistent to argue that the corporate tax restricts investment and then to deduce from this effects on prices without taking into account the almost inevitable impact of reduced investment on employment and aggregate income and demand.

The corporation is of such dominant importance in the present-day American economy that fluctuations in corporate investment and output cannot but have the most far-reaching effects. About two-thirds of all goods and services produced in the country in recent years by private enterprise have originated in the corporate sphere. An even larger percentage of total nonagricultural production is carried on through the corporate mechanism.¹³

Analysis of the effects of taxes of wide coverage, such as the federal corporation income tax, requires more than extension of the traditional type of incidence theory. Occasional recognition of the necessity of a broader theoretical framework for the study of a general tax has been evidenced by a few applications of the quantity theory of money to the problem of the incidence of a general income tax and of a general sales or output tax.¹⁴ Thus it is reasoned, on the logic of the familiar

¹³ The generalizations in the text are based on estimates made by the present author, using gross national product, national income, and related data as estimated by the Department of Commerce. The estimates assume that corporations in recent years have accounted for the same percentage of the net national income originating in each of the major industrial divisions as they did in 1929, according to a Department of Commerce estimate. See: Martin Taitel, *Profits, Productive Activities and New Investment* (T.N.E.C. Monograph No. 12, Washington, Government Printing Office, 1941), p. 143.

¹⁴ This approach to the incidence of a general income tax was suggested by the minority of the Colwyn Committee, *Report*, p. 379; and to a general sales or output tax by Harry G. Brown, "The Incidence of a General Output or a General Sales Tax," *Jour. Pol. Econ.*, Vol. XLVII (1939), pp. 254-62.

MODELS (ex ante) SHOWING POSSIBLE EFFECTS OF CORPORATE INCOME TAX

Economic Group	Incomes Disposable from Gross National Product	Expendi- tures for Gross National Product	Saving	Invest- ment
I. Before Corporate Tax Is Imposed				
Consumers	140 ^a	120	20	0
Business	10 ^b	30 ^d	10	30
Government	30 ^c	30	0	0
Total	180	180	30	30
II. After Corporate Tax Is Imposed				
A. Investment Decreases as Direct Result of Tax				
1. Consumers	134 ^a	114	20	0
Business	8 ^b	26 ^d	8	26
Government	38 ^c	38	0	0
Total	180	178	28	26
2. Consumers	134 ^a	116	18	0
Business	8 ^b	26 ^d	8	26
Government	38 ^c	38	0	0
Total	180	180	26	26
3. Consumers	134 ^a	118	16	0
Business	8 ^b	26 ^d	8	26
Government	38 ^c	38	0	0
Total	180	182	24	26
B. No Direct Effect on Investment				
1. Consumers	134 ^a	116	18	0
Business	8 ^b	30 ^d	8	30
Government	38 ^c	38	0	0
Total	180	184	26	30
2. Consumers	132 ^a	112	20	0
Business	10 ^b	30 ^d	10	30
Government	38 ^c	38	0	0
Total	180	180	30	30

^a After personal taxes.^b Gross business saving—retained profits and reserves.^c Tax and nontax revenues.^d Gross investment.

equation of exchange, that if a general tax does not bring about a decline in production, prices can rise only if the quantity and/or velocity of circulation of money increases. Similarly, if the tax does cause a re-

duction in the physical volume of output, prices will rise only if the quantity and velocity of circulation do not decrease proportionately with output. The quantity and frequency of use of the means of payment, however, are a reflection of the total of money incomes, public and private. The most direct approach to a study of the price effects of the corporate income tax is through an analysis of changes in aggregate money income and demand.

Effects on Consumption, Saving and Investment

Various possible influences of the corporate tax on aggregate income and demand and their implications for the price level can perhaps be made clearer by a set of simplified models. The models depicted in the table show one assumed allocation of incomes and expenditures for gross national product—including consumption, savings and investment—before imposition of a corporate income tax, and several alternative developments which might follow imposition of the tax. The models show only the primary effects of the tax in *ex ante* terms and are stated in constant prices. For simplicity, it is assumed throughout that the government's budget is balanced, and government transfer payments are ignored. No account is taken of lags between accrual and payment of the tax, and the additional net revenue from the corporate tax (after allowance for its effect on the yield of individual income tax) is assumed to be spent immediately by the government for goods and services. A corollary of these assumptions is that the government's policy is passive—that it does nothing to reverse economic developments before they are well under way. The same general type of analysis could be applied without reliance on these simplifying assumptions. For example, the effects of the corporate tax could be considered on the assumption that the revenue is used to replace deficit financing or some other source of revenue or to reduce the public debt.

The models shown under Section II, A, of the table are based on the assumption that imposition of the tax on corporate profits is immediately followed by a reduction in investment. This assumption, as already pointed out, is the basis of the conclusion that the tax causes a rise in prices, which can be reached by extension of the traditional theory. The two models under Section II, B, illustrate possible types of developments on the assumption that the corporate tax has no direct effect on investment.

In Model II, A, 1, individuals are assumed to maintain their savings and to reduce their consumption by the full amount of the decrease in their dividend income, the fall of dividends being somewhat cushioned by a reduction in corporate savings. The net result is that planned ex-

penditures fall short of the level expected before the tax, and planned savings exceed planned investment. The model illustrates a deflationary situation. The imbalance between production and aggregate demand *ex ante* and between savings and investment *ex ante* means that a cumulative decline in money incomes will begin. This decline will continue until equilibrium is achieved at some new, lower level of money income and demand. The process of adjustment will probably include both a decline in employment and real output and a fall in prices. If the corporate tax has the unfavorable consequences assumed in Model II, A, 1—that is, if it decreases planned investment more than it decreases planned saving—it is likely to depress prices, not to increase them.

If, however, the tax brings about as large a decrease in planned savings (individual and corporate) as in planned investment, there is no disturbance of the level of money income. This is illustrated in Model II, A, 2, in which individuals are assumed to reduce both their savings and consumption, and corporations both their savings and investment. In such a situation there is no reason for expecting any change in employment and real output or in prices to flow directly from the tax. So long as business and consumers follow their new savings habits, equilibrium will be maintained with a lower level of investment. The lower level of real investment may ultimately be reflected in smaller real output of finished goods and services. However, this decline in real output will result in smaller money incomes and need not be the occasion of a rising price level. Thus, in the framework of the assumption of passive government policy and a balanced budget, Model II, A, 2—like II, A, 1—provides no basis for predicting a rise in the general price level. If the government should incur a deficit and adopt some device for maintaining money incomes, it would either stimulate more investment and real production or raise the price level.

If, as a result of the corporate tax, savings planned by business and individuals out of given money incomes decline more than investment declines, the tax will have an expansionary effect. This possibility is illustrated by Model II, A, 3, where *ex ante* investment exceeds savings. The result will be a cumulative increase in money incomes. In general, if the prior equilibrium has been at a level below full employment, employment and real national output can be expected to rise. If the prior equilibrium has been at full employment or near it, prices will rise as a result of the increase in money incomes. Actually, such a simple distinction between the two situations is unrealistic. Prices are likely to rise at least moderately with any substantial expansion of money incomes because of bottlenecks and increases in costs likely to be encountered in expanding production. Here at last is a case in which the corporate tax might legitimately be assumed both to restrict investment and to stimulate a price rise.

Assuming the corporate tax has no direct effect on investment plans, it is possible to apply reasoning analogous to that used on the assumption that the tax decreases planned investment. If either businesses or individuals plan to save less, while businesses plan to maintain investment, the result will be expansionary (see Model II, B, 1). Real output or prices or both will rise. On the assumption of stable investment and immediate government spending of the proceeds of the tax, the tax can fail to be expansionary only if consumers maintain their savings plans (in term of absolute dollars) and cut consumption by the full amount of the decrease in their dividend incomes (see Model II, B, 2).

It is not possible to say with any confidence which of the five models most nearly represents the actual effects of the corporate income tax. The nature of the investment decision is largely an imponderable. Hence, different observers will draw widely varying conclusions about the effects of the tax on investment plans. It can be confidently asserted that the corporate tax is paid with funds of which a considerable share would otherwise be saved. To the extent that this is true, the depressing effects on aggregate money income arising from a reduction in planned investment caused by the tax will be partly or wholly offset.

There remains the problem of applying the income-flow analysis to the possible effects of more or less arbitrary price mark-ups, which are sometimes asserted to result from the corporate tax. In discussing the equilibrium of the firm and the corporate tax, I have already indicated that only in the case of the previously self-restrained monopolist or quasi-monopolist, is there a rational basis for attempting to increase prices to recover a part of a tax on profits. This is true so long as profits are so defined for tax purposes that all short-run costs are free of tax, which seems to be the case under the federal corporate income tax. Much more evidence than is now available is required to support a contention that business men in any substantial numbers or to any great extent try to raise prices to cover the income tax.

To the extent that prices are arbitrarily raised in an effort to recoup the tax on profits, the economic consequences will be similar to those of any other arbitrary price increase not accompanied by increased wages or other disbursements to consumers. The price rise can be maintained only if some group—consumers, business, or government—will finance it by saving less and spending more. The likely result of such a willingness would be that planned savings would fall below planned investment, and an expansionary situation would ensue. In consequence, prices would rise still further or employment and real output would increase, depending on whether the economy had previously been operating at full capacity. If, on the other hand, no group is willing to finance the attempted price increase by drawing on savings, it will be impossible to maintain both the higher prices and the previous volume

of real production. The familiar deflationary spiral will begin to operate, and it will carry downward money incomes, employment, real production, *and* prices.

It appears that the corporate income tax is likely to bring about an increase in the price level only if the net effect of the tax is expansionary. If the tax is expansionary it will increase money incomes, and this will lead to higher prices or greater production or both. But the conditions which seem to be implicit in the usual type of case in support of the opinion that the tax raises prices are precursors of deflation and a decline—not an increase—in the average level of prices.

The Corporate Tax and Wage Rates

This whole discussion has concerned the possible effect of the corporation income tax on commodity prices. Another interesting and perhaps more difficult question relates to the effect of the tax on wages. In highly unionized industries where near-monopolist suppliers of labor (unions) bargain in many cases with quasi-monopolist purchasers (large employers), the conditions that finally determine the wage contract are difficult even to enumerate, much less to evaluate. It may well be that one of the factors which influence wage demands by unions is the level of their employers' profits after taxes. Profits after taxes may have an even more significant bearing on public opinion as to the merit of wage demands and on the decisions of public arbitration or mediation bodies.

Nevertheless, wage demands appear usually to be related more closely to the general state of the labor market and the exigencies of organizing campaigns than to profits. There is no basis for assuming arbitrarily that any large portion of a reduction in the corporate income tax in the post-war period would find its way into the pay envelopes of workers.¹⁵ More particularly, it is not reasonable to assume that the funds released by a reduction in the corporate income tax would be divided among workers, dividend recipients, and consumers. If lower corporate taxes do bring higher wages, there is ample reason for believing that a major part of the wage increase will be reflected in higher prices. For wages, unlike the corporate income tax, are a direct cost of production in the short run. The wage bill is the major constituent of costs which are typically subject to mark-up in determining price policy.

This conclusion is supported by the remarkable stability of the past relationship between gross income produced in private business and salaries and wages paid by private business. The tentative con-

¹⁵ "Transition to Peace," *Fortune*, Vol. XXIX (1944), p. 184, offers an example of such an entirely arbitrary assumption.

clusion reached, paradoxical as it may seem from the point of view of the neo-diffusionist school, is that to the extent to which it stimulates wage increases, a reduction in the corporate tax will mean higher instead of lower prices.

Conclusion

Analysis on the basis of the equilibrium of the individual firm argues strongly that in the short run the corporation income tax will give no direct inducement to changes in output or price, whether under conditions of competition, monopolistic competition, or monopoly. For the long run the case is less clear. The federal corporation income tax fails to allow deductions for some long-run costs. Extension of the traditional type of incidence theory would lead to the inference that the tax in the long run will restrict supply and raise prices. However, for dealing with a tax such as that on all corporate profits, this theory suffers from the fatal weakness of being founded on the implicit assumption of fixed demand.

When variations in aggregate demand and the indirect effects of the tax and government expenditure of the proceeds are taken into account, it is reasonable to conclude that the corporate tax results in higher prices only if its influence is on balance expansionary. By "expansionary influence" is meant a stimulus to aggregate money incomes. Generally speaking, an increase in money incomes and the accompanying rise in aggregate demand will be associated in periods of less than full use of resources with increases in employment and real income and to some extent prices, and in periods of near-capacity operation of the economy mainly with an increase in prices. It is highly unlikely that the corporation tax will be expansionary in comparison with deficit spending. The tax and government spending of the proceeds, however, may prove expansionary as compared with a government program which omits both the tax and the expenditures which it finances. Moreover, it is quite possible that the corporation tax will be relatively less deflationary (and in a sense more expansionary) than many other taxes. Thus, use of the corporate tax may mean a higher price level than some other means of financing or than lower public revenues and expenditures.

This is the correct sense in which any tax as general in coverage as the corporation income tax may be said to bring about a higher price level. It is, of course, not what is usually meant by an assertion that a tax is "shifted" in the form of higher prices. Neither this conclusion nor the process by which it is reached offers any support for the now popular supposition that the tax on profits is in some way recovered by the corporation from its customers in the form of higher prices.

For policy it is important that to the extent to which the corporate tax is expansionary and does raise the price level, it is relatively a "good" tax, under all except boom conditions. The same is true of all taxes of very wide coverage.

A closer analysis of the possible economic consequences of the corporation income tax might lead critics of the tax to be more careful to avoid incompatible arguments of the type often advanced of late. Specifically, it is not probable that the tax simultaneously restricts investment, raises prices, and depresses wages; nor is it likely that reduction or elimination of the tax would simultaneously stimulate investment, reduce prices, and raise wages.

FORECASTING THE NATIONAL PRODUCT

By STANLEY LEBERGOTT*

Building upon the excellent studies of national income which have appeared in recent years, the present paper attempts to develop a method of forecasting gross national product under peacetime conditions which do not differ markedly from those prevailing during the 1921-1941 period. The primary analytic conclusion indicates a critical rôle for profits in the determination of gross product. The primary statistical conclusion (embodied in two estimating equations) is that gross national product values for the period between wars can be closely approximated by the use of a weighted and led series on profits in conjunction with a weighted concurrent series for federal expenditures (*cf.* Fig. 1). The gross product series employed is given in the table, and its derivation discussed in the Appendix.

For convenience in presentation the paper has been divided into six sections:

- I. Examination of the statistical relationships between outlays for construction and for producers' durables on the one hand and gross national product on the other, to determine whether forecasting by means of investment factors is feasible.
- II. Consideration of alternate studies, such as those of Kalecki, Mack and others.
- III. Description of the model for national economic activity which is implicit in the statistical analysis.
- IV. Computation of the estimating equations and their component series.
- V. Consideration of such alternate factors as farm income, federal debt and others which proved to be unnecessary or detrimental variates.
- VI. Summary.

I

The primary conclusion reached from an analysis of how private investment and GNP_1 —the series on gross national product used in the

* The author, who is an associate economist in the Bureau of Labor Statistics, is indebted to the generous and manifold courtesies of Mr. Evsey Domar of the Federal Reserve Board and Mr. George Jaszi of the Department of Commerce; and to Mr. George Schumm of the Department of Labor's Division of Construction and Public Employment for data on semi-annual construction activity. The views Mr. Lebergott expresses are his own and do not necessarily reflect those of the Bureau of Labor Statistics.

present study—were related was that, by and large, construction and producers' durables outlays varied continuously and concurrently with gross product¹ The nature of the relationship is indicated by Figure 2, where semi-annual private investment in these items (other than residential construction) is graphed against corresponding values for gross product. The relationship is reasonably uniform and unequivocal, the

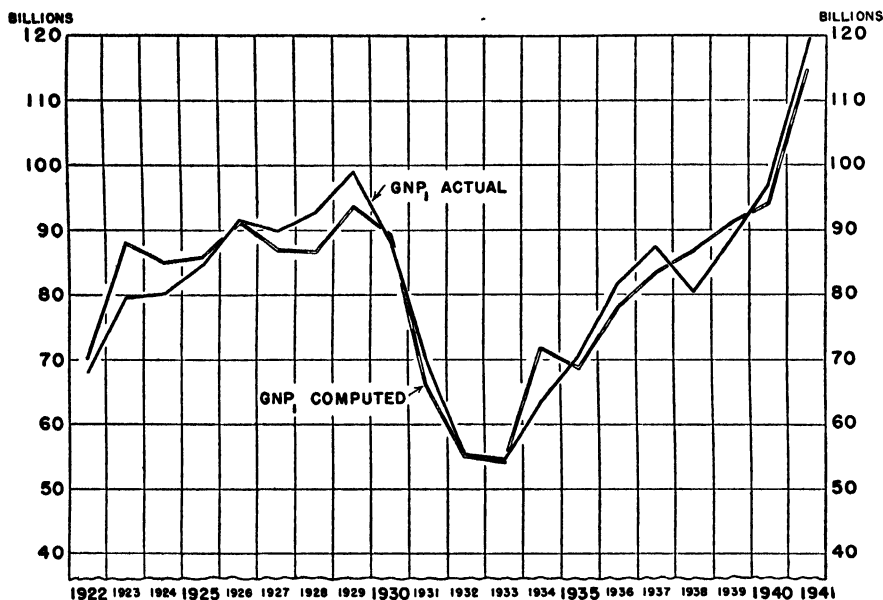


Fig. 1. Gross national product, actual and computed, 1922-1941.

correlation for the 1921-32 period being .90, and for the 1932-41 period, .97.² The patterns of relatedness which lie behind these correlations can be discussed under three headings: (1) private construction

¹ The semi-annual construction data are based on the application of expenditure patterns similar in nature to those developed in the N.R.P.B. study on *The Economic Effects of the Federal Public Works Expenditures, 1933-1938*. They are believed to be superior to interpolations based on Dodge data, such as Barger's, since those reports are subject to bias in year-end reporting and since they do not bear a constant relationship to expenditure as Barger's procedure assumes. Quarterly data for producers' durables are taken from estimates of Harold Barger's *Outlay and Income in the United States, 1921-1938* (1942) and from two publications of the Department of Commerce: Milton Gilbert and George Jaszi, "National Income and National Product in 1942," *Survey of Current Business*, March, 1943; George Jaszi, "National Product and Income in the First Half of 1943," *Survey*, August, 1943. Practically identical figures are given in the revised estimates of Milton Gilbert and George Jaszi, "National Income and National Product in 1943," *Survey*, April, 1944. No investment items other than these two and imports were considered, since other offsets to saving are at least as much functions of product as vice versa.

² All correlations are given as adjusted for size of sample.

other than residential; (2) private residential construction; and (3) private investment in producers' durable goods.

Private Construction other than Residential

The major components of this category—public utility, farm and nonresidential—were each graphed against gross national product for concurrent and various lagged periods. The most efficient linkage was

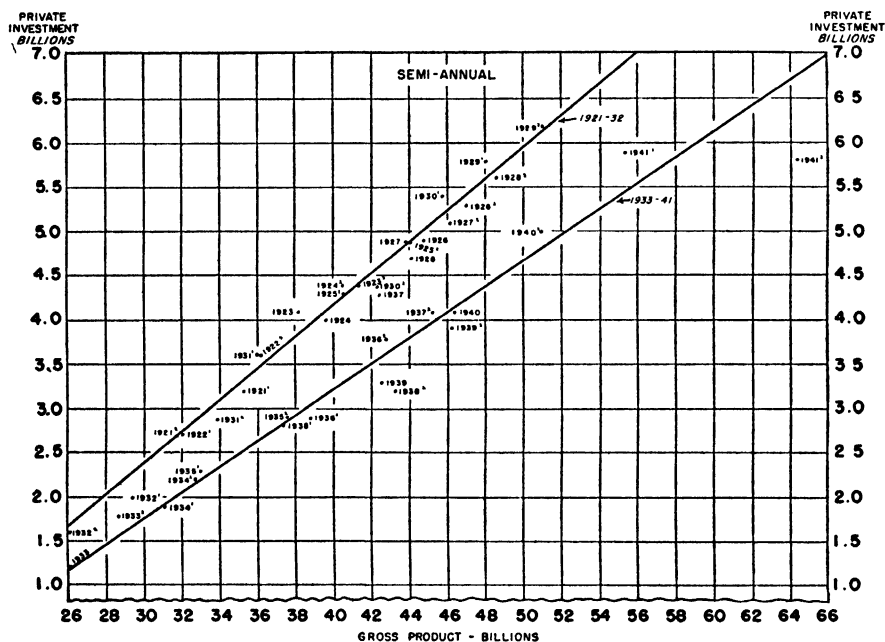


Fig. 2. Relationship between gross national product and private investment in producers' durables and nonresidential construction, 1921-1941.

apparently that between construction and gross product for the same half year, with one relationship peculiar to the 1920-32 period, and one to the 1932-41 period. The absence of any lag between investment in nonresidential construction and product, and the difference in relationship between the periods tend to make forecasting based on investment-product relationships unsatisfactory.³

³ Apparently the function is one which varies through time, and until the principle of variation is established we shall not know whether to forecast a product based on the 1920-32 investment-product relationship, the 1932-41 relationship or a *tertium quid*. The same difficulty appears in connection with the use of expenditures for producers' durables.

Private Residential Construction

The fact that expenditures for residential construction tend to forecast future levels of business activity has been known to scholars and Wall Street operators alike, but neither the nature nor extent of the lead has been determined with any precision.⁴ A study of the National Bureau discerns an average lead of Dodge contract data of four months on cyclical turning points, with this lead obscured by erratic movements and frequent reversals of direction.⁵ Since a four-month lead is merely a month longer than the lead of the F.R.B. index on the cyclical revival, it is clearly of little value for intermediate-term forecasting.

In the present instance the relationships were examined anew, using not only the annual data as revised in 1943, but semi-annual data provided by the Division of Construction and Public Employment of the Bureau of Labor Statistics. Various weightings, leads and lags were attempted, the neatest of which proved to be a simple relationship between semi-annual residential construction for a given period and semi-annual gross product a year following. The correlations for the 1920-32, and 1932-41 periods were .91 and .89⁶ Any explanation of these figures—and particularly of this extensive lag—is made difficult not alone by the complexity of the problem but also by the extensive and inconclusive body of exegetical comment.⁷ One study links housing construction and gross national product for current periods, gathering the residuals into a semi-autonomous housing cycle.⁸ Others concentrate on the dynamics of the housing cycle, tying construction not to gross product but to a nexus of factors, many of which are related to gross product.⁹ One careful and expert study finds that a concurrent relationship between the level of construction and the level of stock prices exists, either because of forces common to both, or because of forces which act through speculation in stock equities upon speculation in building equities.¹⁰

⁴ "Forecasting Business," *Fortune* (October, 1938), p. 108. Wesley C. Mitchell and Arthur F. Burns, "Statistical Indicators of Cyclical Revivals," Bull. 69, National Bureau of Economic Research (May 28, 1938).

⁵ Mitchell and Burns, *op. cit.*, pp. 8-9.

⁶ As a matter of interest, a half-year lead was likewise employed. The correlation for the earlier period was virtually identical; that for the later dropped to .73. The use of annual data with varying leads gave similar results.

⁷ Cf. the detailed study of J. B. D. Derksen, "Long Cycles in Residential Building: An Explanation," *Econometrica*, Vol. 8 (April, 1940), and the earlier work of Roos, Tinbergen, Chawner *et al.*

⁸ Mordecai Ezekiel, "Statistical Investigations of Saving, Consumption, and Investment," *Am. Econ. Rev.*, Vol. XXXII, No. 2 (June, 1942), pp. 286-88.

⁹ Thus both the ratio of family income to the annual cost of ownership and the index of rents which Chawner and Derksen use are related to current product.

¹⁰ Clarence D. Long, Jr., *Building Cycles and The Theory of Investment* (1940), p. 114. Cf. chap. VI, *passim* and pp. 45-46 for a careful and sensible discussion of this relationship.

The rationale of the present analysis implies that the extensive lead of residential construction on gross national product arises in no small measure from the relationship between residential construction activity and the current level of profits.¹¹ A large and variable portion of the houses constructed each year are destined—directly or eventually through speculative construction—for upper income groups: F.H.A. data for 1938, for example, tend to indicate that a third of the homes built were constructed for families with annual incomes of \$3,000 or more.¹² However, the economic well-being of families in that income bracket is intimately linked with the varying fortunes of profit receipt and those upper bracket salaries which vary with profit receipt. This pattern of contingencies, therefore, although it will explain neither the housing cycle, the nature of demand for residences or alternate matters, may be of some assistance in determining the causes for the extensive lead of residential construction on gross product.

Producers' Durable Goods

Volatile as the course of expenditures on producers' durable goods may seem, the pattern of these expenditures has tended to parallel that of the gross national product. The relationships between these series are reticular and intertwined; the chain of causation extends from one to the other and back again. When prosperity is a tacit assumption in the thinking of entrepreneurs, when optimisms flourish, then orders for capital equipment tend to follow suit. Conversely, the higher the levels of employment and expenditure in the capital goods industries, the higher gross national product will tend to be.

The present data are not adapted to determining which of these influences may be dominant. They can only suggest that when quarterly figures are used, so intimate and concurrent a relationship is indicated that any lag or lead, if present, is not more extensive than a month or so.¹³

¹¹ The correlations for the two periods—at best no more than suggestive—are .92 and .86.

¹² Peter Stone, *Towards More Housing* (1940), p. 24. For emphasis on the luxury character of much residential construction, see J. M. Clark's old but still invaluable *Strategic Factors in the Business Cycle* (1934), p. 38, as well as the Twentieth Century Fund's *American Housing* (1944), Tables 17 and 36.

¹³ Using data for the first quarter of each year, 1922-1941, the correlation between durable goods and product is .96. For the succeeding quarters the correlations are .97, .96 and .96.

As a matter of interest, public construction was likewise considered. With the exception of highway construction a concurrent variation was indicated. Highway construction followed product by something over a year, presumably because expenditure for this item is largely a function of receipts, while receipts—primarily from property and sales taxes—tend to fluctuate with business conditions of an earlier period. This, together with the time for budget preparation and actual disbursement, may perhaps explain the rather extended lead.

Aggregate Investment

Because of the lack of conclusive results from the analysis of the investment variables which are at once the most significant and apparently most independent variables, it is not clear how logically satisfactory any techniques would be which attempted to infer an estimate of gross national product from an estimate of investment.

More or less explicit in the previous discussion is the view that investment is considerably less of an independent than a dependent variable which, like product itself, tends in great measure to be a function of profits. Problems of the multiplier, of the interrelations between multiplier and acceleration principles, are not relevant here. No attempt is made to decide any of them. What is asserted is that on the basis of available evidence investment does not lead gross national product but varies with it—both being functions of profit takings in a prior period and of federal expenditures in the years when such expenditures are sizable. (Private investment in producers' durables and in construction other than residential correlates with current product in the order of .97 over the entire period.¹⁴) To estimate the level of product from a guess as to the level of investment is, in effect, to deduce one dependent variable from another—both linked because of their mutual dependence on a third variable.

In a full-employment society we might find the linkage so tight that investment and gross product would move exactly together. But certainly such a relationship does not exist in our present economic order. Some forms of investment—in residences, for example—tend to anticipate gross national product. Other forms—nonresidential construction and producers' durables—tend to vary with product. In an economy where major concerns can operate with a break-even point of 50 per cent of capacity, and where something in the order of a fifth of our facilities were idle even in 1929, it is clear that payrolls, shipments and materials expenditures can all swiftly rise without any proportionate rise in facilities investment. Furthermore, the definition of investment which seeks to sort out factors having characteristically greater multiplier or acceleration effects includes, for example, the value of office machinery which totaled some 250 millions at final cost to user in 1941, but excludes the value of passenger cars—a sum ten times as great. The reason cannot be because the passenger car industry requires fewer punch presses, lathes or machine tools. Nor can it be because of more modest demands for construction, coal and steel, or for development of the facilities of the railroad, trucking or electric power industries.

¹⁴ Cf. the discussion in Moses Abramovitz, *An Approach to a Price Theory for a Changing Economy* (1939), pp. 155-158; and J. M. Clark, *Strategic Factors in Business Cycles* (1934), *passim*.

However we define investment, however we differentiate it from the consumer durables expenditures, it will be readily admitted that investment is no trivial phenomenon on the surface of economic activity. It has marked and strenuous effects in multiplying employment and consumption, while its course may intensify the "over-capacity under-consumption" problem seen by some economists. But so far as methods of forecasting gross product are concerned, offsets to saving in the form of investment cannot be treated as a whole. Nor can even the most

GROSS NATIONAL PRODUCT—ANNUAL AND QUARTERLY TOTALS, 1921-1941

Year	Annual	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Deflated Gross Product
1921	66.9	18.1	17.1	16.1	15.6	54.4
1922	68.1	15.8	16.2	16.4	19.7	58.6
1923	79.6	18.0	20.2	20.0	21.4	66.3
1924	80.1	19.3	20.3	19.3	21.2	67.5
1925	84.5	20.0	20.5	20.5	23.5	70.1
1926	91.6	22.0	22.7	22.2	24.7	75.6
1927	89.9	21.3	22.5	22.4	23.7	76.0
1928	92.7	22.2	21.9	22.8	25.8	78.4
1929	99.0	23.3	24.7	25.0	26.0	84.0
1930	88.0	22.6	23.1	21.6	20.7	77.2
1931	71.9	18.3	18.7	17.4	17.5	68.3
1932	55.3	14.6	14.8	12.4	13.5	57.4
1933	54.7	12.3	13.8	14.1	14.5	59.1
1934	63.7	15.2	15.9	15.5	17.1	66.1
1935	70.6	16.1	16.9	17.5	20.1	72.1
1936	81.5	17.4	21.3	19.6	23.2	82.8
1937	87.5	19.9	22.5	22.7	22.4	85.4
1938	80.5	18.5	18.8	19.5	23.7	79.7
1939	88.6	20.5	21.9	21.8	24.4	88.6
1940	97.1	22.7	23.6	23.7	27.1	96.0
1941	119.6	26.0	29.3	30.4	33.9	112.3

independently acting components of investment be treated more usefully in this connection than as dependent functions of profits. They testify to the expectations and plans of producers, and hence vary with employment, with payrolls and with similar trophies of profit taking.

II

Attempts to forecast business conditions reach back at least as far as the days of the Egyptians who foretold crop conditions from the level reached by the Nile in flood season. Some of the techniques employed in forecasting stock market conditions were apparently sired in those days. But despite the development of a not inconsiderable

number of techniques for forecasting business conditions, and factors related to those conditions, it is not possible to evaluate most of the procedures currently in use. Some of these, essentially based on qualitative evaluation and informed judgment, may be more than satisfactory.¹⁵ But many (in particular those developed by professional forecasting services) are veiled in a heavily esoteric language.¹⁶ A few of those centering on the determination of national product, however, have been worked out by professional students and described in some detail.

The procedure recently developed by Miss Mack¹⁷ is aimed at the short-period forecasting of national income on the basis of estimates of consumers' purchases. The calculations of the supply price of consumers' goods, the money available for their purchase, and the residual factors required to equate the two, are marked by a number of rather arbitrary assumptions whose severest critic is Miss Mack herself. Although this technique is built on lines which promise eminently satisfactory results as our data improve, its present tentative state, and—more important—its concentration on short-term estimation, make it presently unsuitable to forecasting for any more lengthy period.

Two other recent econometric studies seek to accomplish long-period estimation. One relates national income to the F.R.B. index and the value of farm income, both for the previous year.¹⁸ The obvious difficulties of determining what the fundamental flows are to which the forecasts are related, of deciding whether the linkage is aleatory or vital, of concluding whether the relationship will vary when the method of computing the F.R.B. index changes or its representativeness fails—all these factors tend to make the use of this procedure without further analysis undesirable. The second study¹⁹ relates a dozen odd offset-to-

¹⁵ As, for example, the forecasts of the Department of Agriculture which have apparently been reasonably satisfactory. (Cf. F. L. Thomsen and P. H. Bollinger, "Forecasting National Income and Related Measures" in Volume 6 of *Studies in Income and Wealth* [1943].) But forecasts based on judgment procedures in large measure cannot readily be valued in terms of technique nor simply judged in terms of rationale. On the very practical issue of correctness, of course, certain of these procedures have been evaluated in the well-known studies of Garfield and Cox, and Cowles.

¹⁶ Standard Statistics Company, *A Forecaster's View of Forecasting* (n.d.); Institute of Economic Timing, Inc., *Brochure on Economic Timing* (n.d.). See also such general discussion as appears in Norman J. Silberling, *The Dynamics of Business* (1943), chap. 7, pp. 238, 577; Elmer C. Bratt, *Business Cycles and Forecasting* (1940); Alfred Cowles, 3rd, "San Stock Market Forecasters Forecast?" *Econometrica*, Vol. 1 (July, 1933); and "Stock Market Forecasting," *Econometrica*, Vol. 12 (July-Oct., 1944).

¹⁷ Ruth P. Mack, "A Technique for Analyzing and Anticipating Changes in National Income," in Shoup, Friedman, Mack, *Taxing to Prevent Inflation* (1943).

¹⁸ Franz Alt, "Distributed Lags," *Econometrica*, Vol. 10 (April, 1942).

¹⁹ Richard V. Gilbert and Victor Perlo, "The Investment-Factor Method of Forecasting Business Activity," *Econometrica*, Vol. 10 (July-October, 1942); *Econometrica*, Vol. 11 (January, 1943), p. 94.

saving items to national income, but the fact that its evaluation does not treat government expenditures and levies separately, and the strenuous criticism to which Milton Friedman has subjected it seem to indicate that it will require further work before it can be confidently employed.²⁰

The ingenious and stimulating study of Kalecki on "Investment and Income"²¹ is attended by all the advantages which follow upon economic wit and competent analysis. It is handicapped by the inadequate statistical data which must be used in the tentatives which open up new analytic territory. Some of these difficulties became apparent when an attempt was made to apply Kalecki's procedures to revised data and to more recent years.²² Four major difficulties appeared. (1) Kalecki's product total is exclusive of business taxes and other minor elements. But inasmuch as he views product as the result of prior investment, no product item should be excluded which logically develops from investment activity. (2) Kalecki restricts himself to private gross product, and attempts to deduct government influences by subtracting the gross savings of government from both investment and product totals. This leaves him in the unfortunate position of ignoring the major rôle of government in determining product, and requires him uniformly to ascribe fluctuations to fluctuations in private activity alone. (3) Kalecki derives investment totals in 1929 dollars by the use of a national product deflator, although he had earlier derived a specific investment deflator.²³ Thus, his 1919 investment total is 30.0 billion dollars. Had he used his investment deflator, it would have been 28.4, and had he used the one present in his source (*National Income and Capital Formation*), it would have reached down to about 27.0. (4) The whole duty in deflation is to penetrate the superficial price phenomena in order to get at the true movement of goods and services. His product deflator, however, is based on a constant weighting of investment goods in the ratio of 1 to 3 for consumption—although this 1929 ratio hardly applies to 1932 when the ratio was actually 1 to 16. Furthermore, the deflators, though annual figures applicable to annual data, are applied to figures for a third of a year. This may distort the true movement of funds in years of transition when economic activity breaks or lifts sharply during the course of the year. In Figure 3 Kalecki's general concepts are adhered to, but revised data and alter-

²⁰ In Shoup, Friedman, Mack, *op. cit.*, pp. 146-153.

²¹ In his *Essays in the Theory of Economic Fluctuations* (1939).

²² It is deserving of note that Kalecki fitted his equation to data for 12 years, leaving out 5 of the 17 years for which he had data.

²³ Kalecki by-passes Kuznets's commodity flow deflator when deriving that for consumption goods, computing his as a weighted average of the cost-of-living index and the price of motor cars, apparently without allowing for the fact that 2.2 per cent of the weighting in the cost of living index is for automobile purchase.

nate deflation procedures are utilized.²⁴ The result indicates a concurrent relationship between investment and product with a reasonably close freehand fit for the 1920's, shifting markedly for the three years of the 1930's that Kalecki used. It does not suggest any lead of investment on product which can be used for forecasting.

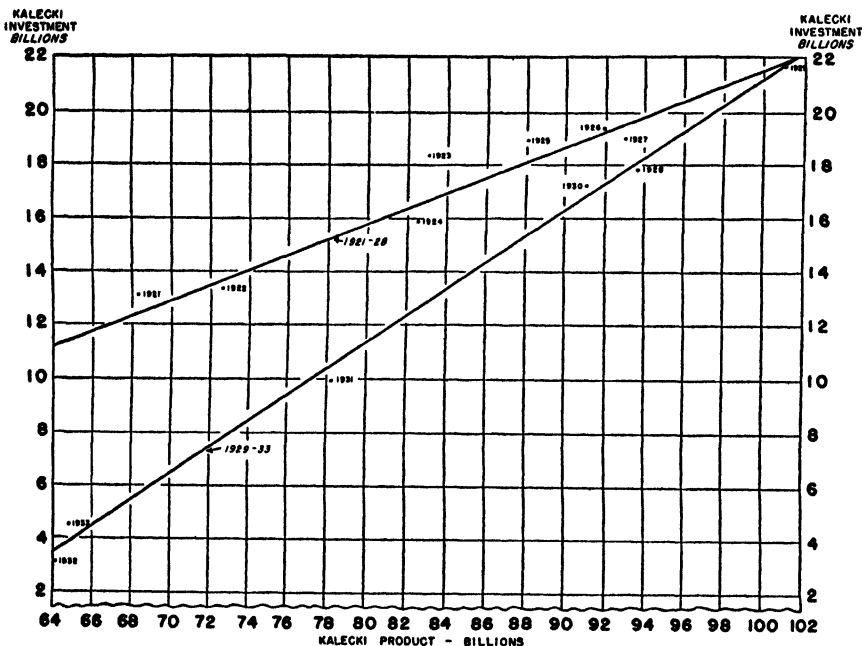


Fig. 3. Relationship between Kalecki private gross product and Kalecki private investment, 1921-1933.

III

The model of national economic activity which is assumed in the present study, and outlined below, is in many respects similar to that

²⁴ The investment total was computed as the sum of gross private investment (Barger, *Income and Outlay*, p. 50, Row D), repairs to producers' durables (Kuznets, *Commodity Flow*, p. 484, Row 2b), and private construction maintenance (Chawner, *Construction Activity*, p. 22 and *Survey of Current Business*, June 1943—total maintenance less that of highways, rivers, harbors, water supply and sewage disposal). This was deflated by an investment deflator based on the data described in the Appendix. The balance of gross product was computed as the total of consumer outlay (Barger, *op. cit.*, p. 42, Row C), servicing of consumer durables (Kuznets, *op. cit.*, p. 324, Row 3b), and the residual item of gross increase in capital livestock (Kuznets, *loc. cit.*, Row 4b). The two subtotals were added to give private gross product and the whole deflated by the product deflator derived in the Appendix.

presented in a recent article by Tinbergen and, to a lesser extent, in his *Business Cycles in the United States*.²⁵

For the period between the First and the Second World War, the American economy can be viewed as a system whose prime goal and mover was the receipt of profits. Pulled and hauled by the pressures of trade unions and trade associations; shifted about by such exogenous factors as motives of state, international political developments, cultural change and hundred lesser forces; that economy nevertheless took its main direction and stimulus from the competition of enterprises in search of the consumer's dollar. The profit motive was the primary economic motive and the receipt of profits, therefore, assumes a major rôle in any explanation of the economic system for those years. With the coming of the depression, of course, the spending of the federal government becomes of coördinate, if not greater, importance.

We may begin with a consideration of the economy at the end of a given income period. Wages, salaries, and, to a lesser extent, the other distributive shares have just been paid out. Because of the constancy of the consumption function—indicated in the work of Samuelson, Stone and others—this means that the value of spending out of those receipts is likewise given. But with consumption given, we can proceed to infer such magnitudes as the level of induced sales, shipments, wage disbursements and, finally, of profits. We know that the level of sales and inventory changes is related to consumer takings, and that employment varies chiefly with such spending. It is likewise the case that profits vary with such spending: the correlation between consumption and profits for the 1922-41 period is .80.²⁶ It arises not because all other factors are unimportant. They are not. It is rather that they can be swept into an all-other-things-being-equal category.²⁷ Were they

²⁵ "Critical Remarks on Some Business Cycle Theories," *Econometrica*, Vol. 10 (April, 1942). Any student in these fields must benefit so largely from Tinbergen's work that there may be some tendency to ascribe the flaws as well as the virtues of any work to that source. Aside from general cautions, it should be noted that the models do differ: in many respects his phrasing is equivocal or diffuse, and his statistical determinations—for example, the lead of profits on investment—are not similar to those of the present paper. Kuznets's suggestion that business savings levels have a "high prognostic value since usually enterprises that enjoy large positive savings . . . are likely to expand their activities in the future" might lead to conclusions on the rôle of profits not dissimilar to those envisaged in the present study. (Simon Kuznets, *National Income and Its Composition*, 1919-1938 [1941], Vol. I, p. 78.)

²⁶ The consumption figures used were based on the estimates of Barger, Kuznets, and the Department of Commerce. The profits series was based on estimates of Barger and the Department of Commerce, and is discussed in Section IV below.

²⁷ Among these factors which inflate or lessen profits are returns from investments, relative efficiency of operation, government taxation policies, union activity, agreements on price among producers of raw materials, a changing ratio of labor productivity to wages, and half a hundred other factors which are relevant. Nevertheless, it appears that, in the

unequal, and changing disproportionately, we should have to treat them directly. But given a straight line cost curve, or a slightly parabolic one, characterizing the production sequences of no inconsiderable number of enterprises, we may infer profits fairly well from consumption alone.²⁸

But given a value for profits, we can immediately infer a value for future levels of employment, payroll disbursements, and also for gross product. The reasoning behind this chain of inference is hardly abstruse. The level of profits will tend to shape the hopes and fears of entrepreneurs, canting their plans for expansion and introduction of innovation, and therefore fixing the nature of business men's expectations. But if it determines business confidence it follows that it likewise determines the changes which business intends in employment (both total labor force and manhours to be worked), in inventory, in raw materials orders, and even the value of the introduction of innovation.²⁹ It will even determine how flexible business men are in response to demands for increased wages, whether those demands are presented directly by trade unions or indirectly by the subtle pressures of the labor market attracting workers to other concerns.³⁰

In the conclusion that business confidence is vital, there is, of course, substantial concord. But in the conclusion that current profits almost

short run and in the absence of marked and disproportionate changes in these elements, we can restrict our attention to the volume of consumption.

²⁸ For a discussion of the characteristic cost curve, see C. Reinold Noyes, "Memorandum on Costs in Relation to Output," in Joel Dean, *The Relation of Cost to Output for a Leather Belt Shop* (1941); and Hans Staehle, "The Measurement of Statistical Cost Functions: An Appraisal of Some Recent Contributions," *Am. Econ. Rev.*, Vol. XXXII, No. 2 (June, 1942), especially Sections 2 and 3.

²⁹ One may accept Schumpeter's pattern for the introduction of novelty in economic affairs, and yet assert that the dollar value of investment in novelty varies with profits and gross product. It is not without interest that even a concern as large as U. S. Steel consistently invested less than its engineers recommended during the depression, increasing the amount actually invested as compared with the amount recommended when the depression began to lift. The discussion in Ruth Mack's *The Flow of Business Funds and Consumer Purchasing Power* (1941) is illuminating.

³⁰ It is a manifest truth that the demands of labor organizations are not necessarily tied to the finances of the enterprises from which they demand wage increases. But it is clear that in good times—particularly where high union organization prevails—pressures arise because it is felt that enterprises can afford to pay higher wages. In times of slump the ease with which a job is lost tends to restrain demands for increases and to moderate protests against wage cuts. In addition it is clear that at least some union leaders are aware of the conditions of plant finances and consider them before making wage demands—as has been particularly the case in the relations between the S.W.O.C. and small steel producers, the I.L.G.W.U. and dress manufacturers and in many other less well publicized instances. While there are no reliable data on wage rates in manufacturing over an extended period to substantiate this contention directly, it may not be without interest that quarterly data for the 1932-41 period indicate the correlation between average hourly earnings in manufacturing and profits to be .91.

unequivocally make the level of business confidence a divergence of opinion exists. Many an editorial writer is more exercised over the climbing federal debt and multiplying bureaucracy. Many a neatly printed pamphlet finds that business men "heavily from woe to woe tell o'er the sad account of forebemoaned moan" as they contemplate governmental policies. All of which may be so. But the statistical analysis suggests that these factors are of little importance as compared with actual profit takings. Business men employ and invest when profits—and government spending—are high, no matter what the size of the deficit or the amount of bureaucracy. Business slices its payrolls when profits and government spending decline. In an economy guided by the activities of business men, their actual plans must be given the greatest consideration. And in a profit economy, the profits on which they base those plans must be given a primary rôle.

The ignoring of such factors as a mounting federal debt and other presumed determinants of business confidence is an arguable matter but one whose answer is not beyond all conjecture.³¹ For "business confidence" is a relatively simple function of future profits, while future profits are envisaged pretty largely in the shape of present profits. Present and future profits are equated partly because it is virtually impossible for business men to do otherwise,³² and partly for the very excellent reason that future profits do resemble current profits: over the 1921-41 period the correlation of first quarter-year profits with the succeeding quarter's profits was .93, of second and third, .96; and of third and fourth, .94.³³ Business men, therefore, have every reason for projecting the future in the image of the present. But their vision of future profits brings about very tangible results in terms of changes in labor force, manhours, raw materials orders and so on, as noted above. It brings, in other words, *the determination of future levels of employment and income*. Their expected production plans imply definite capital requirements, and, hence, set the level of employment in the investment goods industries in the next period. Their expected production plans will determine the level of employment they allow

³¹ The relationship between federal taxation and product is considered in section V, where it is not found to be a significant determinant of product. It is of interest to note in addition that the correlation between business profits and changes in federal debt over the 1932-41 period is, far from being negative, markedly positive, with a value of .47.

³² Cf. J. W. Angell, *Investment and Business Cycles* (1941), pp. 68, *passim*, and an excellently lucid discussion in N. S. Buchanan's "Anticipations and Industrial Investment Decisions," *Am. Econ. Rev.*, Vol. XXXII, No. 1 (March, 1942), pp. 142, 155.

³³ The reason for this correlation is not a direct tendency for profit to persist, but rather that profits depend so largely on gross sales that the correlation of one quarter's product with the next automatically brings a correlation of one quarter's profits and those of the following. Thus the correlation between first and second quarter product is .95; second and third, .98; and third and fourth, .95.

for in their own enterprises, and, hence, the level of employment in enterprises furnishing consumption goods to be demanded with the payrolls they plan to disburse. And those same plans, by thus determining employment, will determine the level of wage payments, of consumption expenditures, and—since such expenditures are its largest component—of the national product. (The correlation between employment and deflated gross national product for the 1929-41 period is well over .90.³⁴

Beginning, therefore, with the payment of wages and salaries at the end of one income period, we can state a value for the consumption which is almost instantaneously induced; estimate from that the gross level of business activity and business profits; from profits deduce the hues of business expectations; and from expectations infer the nature of business plans, the subsequent level of employment and, finally, the level of product associated with that quantity of employment. The entire sequence can be handily summed up by correlating profits in one period with product in a later period. The profits correlation is extremely high over the 1922-32 period at .94—and only reduces to .91 for the 1933-41 period. In the latter period, however, we must add an allowance for federal fiscal activity which became a volatile and independent variable with the decline in private activity. The measure of such activity used in this article is termed "weighted federal expenditures," and this series and the product series have a correlation of .96 over the 1933-41 period. The precise methods of calculation and the composition of the explanatory variables are discussed in the following section.

By way of summary we may note that the model assumed for the present study views consumption and investment as dependent functions. Their source and origin is that continuous stream of design and expectation which profit takings induce in the business community. This chain of relationships is not forever unchanging. Federal expenditure is an ancillary but vital force during recent years and promises to continue as such. Various other factors are all more or less relevant, but their relationships to product are trivial, intercorrelated with the profits or federal expenditure series, or at present incapable of statistical assessment. Given the major explanatory series of business profits, supplemented by a federal expenditures series, both with particular lag and weight distributions, we can compute a product series for the

³⁴ The employment series used was based on (a) B.L.S. revised estimates of nonagricultural employees, (b) agricultural employment totals secured by interpolating between Census dates with the B.A.E. series, and (c) estimates of the self-employed prepared by the writer. Adjustments were made for changing productivity of employees, and for trend in the self-employed series.

1921-41 period which—for practical purposes—is very close to the true product series.

IV

The technique of relating profits to gross national product presents an unfortunately generous range of possibility. The initial problem is that of choosing the method most suitable for indicating the presence or lack of causal relationship. The use of deviations from trend is precluded if the period is brief: aside from the problem of a choice of cycle,³⁵ one is confronted with the alternative of either dropping a very considerable percentage of the data, or falling back upon the determination of a least squares trend. The former procedure would make the entire investigation nearly impossible; the latter—though it has commended itself to such distinguished and competent statisticians as Tinbergen—was felt to be undesirable in the present instance. It was therefore decided to employ all the causal series with a lead—with the single exception of federal expenditures data for 1932-1941.³⁶

The correlation between the weighted profit series and national product over the 1922-41 period was .84. For the earlier portion it was, of course, considerably better, being .94. For the post-1932 period it was .91. The estimating equation for the earlier period, using X_1 for gross national product and X_2 for the profits series, was

$$X_1 = 61.330 + 2.57 X_2.$$

The correlation between the federal expenditure series (X_3) and product over the 1932-41 period was .96. The multiple correlation of product with weighted profits and weighted federal expenditures was .97 for the same period. The estimating equation is

$$X_1 = 44.874 + 1.224 X_2 + .818 X_3.$$

The standard error of estimate is irrelevant inasmuch as a small absolute error may be unimportant in forecasting a large product total, but vital in forecasting a small one such as 1932. The maximum percentage error over the period is 12.6 per cent in 1934. The next largest is 10 per cent, while the bulk of the values are within 6 per cent.

³⁵ Cf. M. G. Kendall, "The Effect of Elimination of Trend on Oscillations in Time Series," *Journal of the Royal Statistical Society*, Vol. 104 (1941), Sec. 11.

³⁶ Inasmuch as the data for federal purchases of goods and services are not available in satisfactory form for the years prior to 1929, no conclusive indication can be given that a spurious correlation does not arise. But it is suggestive that over these years total federal expenditures show no apparent relationship to product. The relationship which exists after 1933 is either a causal relationship or one which suddenly began at that date because of subtle parallel "trends" developing. In point of fact, a trend relationship should, if anything, be inverse rather than the positive one which appears: this because federal expenditures tended to increase as product declined, when the government attempted to stem the forces of dissolution, slackening its efforts as conditions bettered.

The series used to derive these equations are described below.

Profits (X_2)—The series used to represent the movement of profits over the period was based on data from Harold Barger's *Income and Outlay in the United States, 1921-1938*, and from various Department of Commerce publications. Barger's data are based on *Statistics of Income* reports for the annual totals and on the quarterly reports of a considerable sample of enterprises, supplemented by data from various special studies. The annual totals are those derived by Kuznets, and are presumably superior to estimates used by Tinbergen and others. The quarterly data rest primarily on Barger's special study of corporate reports for one per cent of all industrial corporations—corporations, be it noted, which made an estimated 10 per cent of all corporate earnings.³⁷ His residual income estimates are intended to include the sum of all nonagricultural dividends, savings and withdrawals. Because of paucity of data, however, entrepreneurial withdrawals in the service and miscellaneous groups were not represented. The residual income series suffers from the additional difficulty of being seasonally adjusted—unlike the other series used.³⁸ Barger's data were pieced out with two Department of Commerce series which, when summed, correspond to the residual income series and are presumed to move as it would. These series are (1) net income of proprietors, nonagricultural, and (2) net corporate profit.

The X_2 series was derived by manipulation of the basic Barger-Commerce data. Lag patterns were derived by charting first-quarter profits against first-quarter product, against second-, against third- and against fourth-quarter product; by charting second-quarter profits against second-, third- and fourth-quarter product and against the first-quarter of the following year. The same procedure was applied to the third- and fourth-quarter income series. The relationships were confirmed by correlation analysis where necessary and a weighting pattern derived—third-quarter of the previous year weighted once; fourth-quarter weighted three times. That pattern when applied to the Barger-Commerce data yields the weighted profits series.

Federal Contribution (X_3)—For a variety of reasons the only public fiscal activity of which account was taken in the equations was the expenditures of the federal government—and those only for the latter half of the period covered.^{38a} The weighted federal expenditure series is

³⁷ Cf. Barger, *op. cit.*, p. 236.

³⁸ A comparison of Barger's quarterly data with Department of Commerce estimates of total value of entrepreneurial and corporate income—which are not seasonably adjusted—also for quarterly periods indicates no constant pattern of irregularity which a sizeable implicit seasonal adjustment would produce.

^{38a} Taxation is discussed in Section V below, and found to be an unsatisfactory variate, while state and local expenditures tend to be a function of product more immediately than

composed of several constituent series: (a) construction activity by and for federal agencies, federal aid to highways and other federal outlays for construction, (b) federal durables expenditures other than construction, (c) all other federal expenditures. The basic total used for federal expenditures was the Department of Commerce series for federal purchases of goods and services. Since this series is intended to represent payment only for current production, there was added to it the transfer payments of government.³⁹ Construction activity estimates were taken from Chawner's study for the period through 1928, and from unpublished data provided through the courtesy of the Construction Unit of the Department of Commerce for the later years. The federal durables series was constructed in a rather rough-and-ready fashion from the W.P.B. *Statistics of War Production*, by adding together the value of munitions produced in the munitions group of industries and the value of machinery and equipment produced for government account, directly and indirectly. The value of construction and of durables was added together to reach a "government investment" total. This investment value and the value of all other government expenditures were then correlated with the product series, and an estimating equation derived. The values of the regression coefficients then indicated the relative weight to be assigned to each of the government expenditure items, and the weighted government expenditure series used in this study was thus computed.

V

In this section consideration is given to a variety of factors which are logically related to products in a causal sense, but which in point of fact are either detrimental variates, or are intercorrelated with the profits series. These factors include net farm income, residential construction, federal taxation and expenditure, state and local taxation and expenditure, the federal deficit and changes in the federal debt.

Farm Income—That the flow of income to farmers should eventuate in purchases of clothing, household furnishings and farm equipment, thus helping to determine the gross product of the following year is a not unreasonable assumption. But while the relationship may be a reasonable one, it is not, in point of fact, a useful one. The closest correlations were found to be those between net farm income to farm

product is a function of them, as note 13 above suggests. The use of a net contribution figure was felt to be less desirable than the separate treatment of taxation and expenditure, since it implicitly gives these factors equal, if opposed, weight.

³⁹ The transfer series does not include various items of R.F.C. disbursements, payments for offshore purchases, prepayments on existing assets or several other very minor items which deserve inclusion but which can be left out in accordance with the exiguity of data without much error resulting.

operators (inclusive of government payments) in one half-year and the gross product of the succeeding year. Although these correlations were quite high, when an adjustment is made for intercorrelation with profits the partial correlations become .38 for 1922-32 and $-.35$ for 1932-41.⁴⁰

Taxation—It has been asserted by more than one authority that as an increasing percentage of national income flows to government in tax receipts, the growth of that income tends to be hampered.⁴¹ An attempt was made to follow in general the procedure of computing ratios of taxes to national income, though certain improvements in procedure were attempted.⁴² The results indicated that (a) changes in the ratio of state and local taxes to gross national product are inversely related to changes in gross product; (b) changes in the ratio of federal taxes to gross product are also inversely related to changes in gross product; and (c) that changes in the ratio of federal progressive taxes to product during the 1930's, when these receipts constituted the great bulk of federal tax receipts, were positively related to changes in gross product. The conclusion seems rather clearly to be that the influence of gross product upon tax receipts is so great that the influence of tax receipts on product cannot be ascertained from the calculation of such ratios, despite the frequency with which they are in fact computed. This

⁴⁰ The semi-annual farm income estimates were based on annual totals for net cash farm income from farm marketings plus government payments, broken down into semi-annual totals by the movement of gross farm income. For the 1921-33 period interpolation was based on Barger's data; for 1924-41, from unpublished and published B.A.E. data provided through the courtesy of Mr. Norcross of that agency. A weighting pattern was secured by computing a number of regressions from Barger's quarterly data. This pattern—third- and fourth-quarter farm income of the prior year each weighted once—was then applied to the semi-annual data used.

⁴¹ H. G. Moulton, *et al.*, *Capital Expansion, Employment and Economic Stability* (1940); Thomas E. Dewey, *The Case Against the New Deal* (1940); and various publications of the Allied Machinery Products Institute.

⁴² Moulton employs fiscal year tax totals and calendar year national income data. The disadvantages of using fiscal and calendar year data are apparent. The desirability of using gross product rather than net data is vigorously presented in Clark Warburton's, "Relation of Government Financing to Gross Income Flow," *Survey of Current Business* (April, 1943), p. 17.

Gross product data for fiscal years were derived from the quarterly data presented in Table I. These totals are suitable to the federal data. Although not wholly suitable to the unequal data on state and local taxes, the relationship between changes in fiscal year product and changes in the ratio of state and local taxes to product are so obvious that these divergencies can be ignored. State and local totals are Census data presented in Moulton, *op. cit.* Federal progressive taxes are the sum of corporate tax liabilities, individual income tax payments, and receipts from unjust enrichment, capital stock, estate and gift, bond and stock issues, stock transfers, and produce futures. Regressive taxes were defined as the balance of tax receipts. The exclusion of A.A.A. receipts improved the indicated fit somewhat, but not materially. Fiscal year tax liabilities were derived from calendar year totals, using the movement of Barger's residual income receipt for interpolation.

variable, therefore, could not be usefully employed in estimating gross product.

Alternate Factors—Some other variables considered and discarded were: (a) the federal deficit which during the 1933-41 period was not negatively related to product but positively correlated at .43; (b) increase in the federal debt; (c) size of the foreign trade balance; and (d) the level of depreciation allowances. The relationships between product and these factors were so slight that no attempt was made to go behind them by using partial correlations.

VI

In the present article an attempt has been made to outline a method of forecasting the general level of business activity and employment as reflected in data on gross national product. The procedure requires the more or less explicit use of a model to represent the American economy in the period between wars. In the model employed in the present instance, a critical and substantial rôle is played by profit takings, which, by and large, reveal business expectations in the shape of present profits. They thereby tend to determine future levels of employment, raw materials purchase, and other types of commitments which are functions of business anticipations. In a period such as the 1930's it is essential to give an equal, if not greater, importance to federal expenditures as a determinant of the course of product. By the use of various leads and weightings two series were developed to "explain" the course of gross product and to predict it under peacetime conditions not dissimilar to those prevailing during the 1921-1941 period. If the parameters remain the same in post-war years we shall find product varying closely with the level of profits of the previous half-year and, if federal expenditures are a sufficiently independent force, with the concurrent expenditures of the federal government. By the use of the profits series for the 1921-32 period, and the profits plus the federal expenditure series for the 1932-41 period, a computed gross product series was arrived at which moved in a fashion reasonably like that of the actual gross product series.

The procedure developed does not apply to wartime conditions for which techniques based on the war outlays and materials expenditures indicated in war production schedules are at once appropriate and accurate. Its application to post-war conditions will, at the very least, require special consideration of such factors as wartime savings, potential export sales, and the national policies on acceptable levels of production and employment, *inter alia*. With the considerable improvement and increase in the data currently reported by the National In-

come and Current Business Analyses Units of the Department of Commerce, and with the excellent studies of basic source materials which the National Bureau of Economic Research is contributing, the eventual development of very precise forecasting techniques may not be too much to expect.

APPENDIX

The product series used in this article was derived by making various additions to and deductions from the most recent estimates of Simon Kuznets, as given in his *Uses of National Income in Peace and War*, page 37, by substituting for published Department of Commerce figures for 1929-1941 revised totals which include the latest Commerce construction estimates, and one more minor change for comparability.⁴⁸ The following were the major changes made in the 1919-1929 data.

Deductions:

Imputed rent (*National Income and Its Composition*, 1919-1938, Vol. 2, p. 735).

Net savings of government (*Ibid.*, p. 814).

Veterans' pensions other than regular establishment (information received from the Veterans Administration).

Value of new construction (*Commodity Flow and Capital Formation*, Vol. 1, p. 382).

Depreciation (*National Income and Its Composition*, Vol. 2, p. 913, col. 1).

Depreciation adjustment (*ibid.*, col. 3).

Additions:

New construction (1919-1928: Chawner, *Construction Activity*, p. 20;
1929-1941: *Survey of Current Business*, June, 1943, p. 32).

Depreciation, Commerce level (derived by applying the movements of Kuznets's depreciation series to the Commerce 1929 estimate, appearing in the *Survey*, May, 1942, Table 1).

Business taxes (estimation described below).

The series arrived at as a result of these adjustments was lower than the Commerce series because it failed to include any direct estimation for capital outlays charged to current expense or income credited to special reserves. Therefore, the adjusted series was not used directly, but its movement applied to carry back the Commerce Department's estimate for 1929 (from the *Survey*, May, 1942, Table 2).

⁴⁸ Since work on this article had been completed and it had been submitted for publication some time before the recent estimates of Hagen and Kirkpatrick were issued, no use could be made of their careful work. The differences in results are relatively minor.

The business tax series was computed by deriving a business tax series and applying its movement to the Commerce Department's 1929 estimate of business taxes (*Survey*, May, 1942, Table 4). It consisted of the following items:

1. Federal income and excess profits tax liabilities (*Statistics of Income*, 1939, Pt. 2, p. 45).

2. Customs receipts (*Annual Report of the Secretary of the Treasury*, 1941, p. 414).

3. All other federal business taxes (all federal taxes minus income, customs, gift and estate. *Ibid.*, pp. 484-87). This series was then interpolated to derive calendar year totals.

4. State business taxes. (This total was derived from data in the Census Bureau's *Financial Statistics of States*. Since the totals given in these volumes are a helter-skelter of 21 state totals in some years, 30 in others, 48 in still others, not to mention the fact that from year to year different states changed their fiscal year endings, these totals could not be used. What was done, therefore, was to group 31 states whose fiscal year endings did not change over the period into six groups according to the date of ending of their fiscal years. These groups were then totaled, interpolated and calendar year totals arrived at. This procedure was likewise applied to the data for Pennsylvania, the only major state not included in the original 31. These totals were then added together to derive a state total, which was then added to the municipal revenues and the movement of the resultant series applied to the Commerce estimate for 1929—from the *Survey* for May, 1942, Table 4.) The component taxes were special property; corporation; business license; income from highway privileges; income; and 75 per cent of general property.

5. Municipal business taxes. (These were derived from *Financial Statistics of Cities* in much the same fashion as the state series. Since the group covered by the Census Bureau during this period changed very little, and since the vast majority of the cities with populations of 30,000 and over had fiscal years ending on December 31, it was assumed that the totals for the 30,000 plus group were representative calendar year totals.)

The product series derived thus was deflated in three units: 1919-29, 1929-39, 1939-41. The deflators for the recent period were those derived in the careful study made by Milton Gilbert and George Jaszi ("National Income and National Product in 1942" *Survey*, March, 1943, p. 11). For the 1919-1929 period, Kuznets's original deflation in *National Income and Capital Formation* was pretty closely followed. Exceptions were: (1) Neither monetary stock nor foreign balance totals were deflated, despite Kuznets's deflation of them. (2) Kuznets's deflators for business construction and durables were replaced by the revised Fabricant series from *Capital Consumption and Adjustment*. (3) The consumer outlay deflator was replaced by the more recent deflator which Kuznets gives in *National Income and Its Composition*.

The deflators for the 1929-1939 period were the following:

Changes in gold and silver, net exports: not deflated.

Business Inventories: BLS wholesale price all items index (*Statistical Abstract*, 1941).

Producers' durables: Shavell's variable weighted index (*Survey*, May, 1943).

Private residential construction: American Appraisal Company, all types (1942 *Survey Supplement*).

Railway construction: railroad way and structure cost index of the I.C.C. (Information supplied by the Bureau of Valuation of the I.C.C.)

Industrial construction: Aberthaw industrial construction index (1942 *Survey Supplement*).

All other private construction: American Appraisal Company, all types.

Public corporation: Aberthaw weighted 6, Bureau of Public Roads composite mile index weighted 4 (information supplied by the Bureau of Public Roads).

All other government expenditures: not deflated.

Consumers' goods: Shavell's variable weighted retail price index (*Survey*, May, 1943).

Rent: BLS cost-of-living rent index (BLS, *Cost of Living in 1941*).

Consumer services except rent: BLS cost-of-living miscellaneous index (*ibid.*).

INTEREST, TIME PREFERENCE, AND THE YIELD OF CAPITAL

By THEODORE MORGAN*

So venerable a topic may well be argued to have its interest staled by age; but it may still be justified to investigate the result of putting into old bottles some new wine—and perhaps in the process conceive whether the bottles were large enough and rightly shaped. The problem is the abstract relation of the yield of capital assets to interest, with especial reference to the level of interest in a “stationary” state. To solve the problem we need to handle the unruly element of time preference so that its influence is removed, not introduced implicitly through definition or assumption; to consider the meaning of interest; and to relate these to the productivity of capital. Our method uses a joint formulation of Fisher and Keynesian interest theories.

I

The question of when an individual would prefer to have a marginal unit of income to consume, now or at some time in the future, may be viewed as depending on three basic facts: (1) his “estimate of the future”; (2) the intensity of his wants now and their expected intensity in the future; (3) the amount of his income now and its expected amount in the future.

We define “estimate of the future” as follows. Our concern is the measurement of the present worth of a future want fulfillment; or, rephrasing the idea, we are concerned with measuring the present marginal utility of a future marginal utility.¹ There are three possibilities: an individual may value a given want fulfillment received in the future (a) below, (b) equally with, or (c) above the same want fulfillment received today. The first situation (a) we call “underestimate of the future”; the second (b), “neutral estimate of the future”; and the third (c), “overestimate of the future.”

* The author is an instructor in economics at Harvard University. He wishes to thank Professors George N. Ham and Paul A. Samuelson, and Mr. John Exter and Dr. Henry C. Wallich for their helpful criticisms.

¹ This concept may be impatiently argued to be altogether too delicate and too subjective. But it is logically valid. Individuals need not consciously reason in this way to come to conclusions coincident with those of our formulation. And such a concept has its essential use when we try to consider what rate of interest will exist under specified “ideal” conditions.

² The name given by Böhm-Bawerk to a similar but not an identical concept. Böhm-Bawerk explains his “underestimate of the future as possibly arising from uncertainty of

The separation of "wants" and "estimate of the future" is critical for our analysis. In the former we seek to group together all psychological attitudes valid for a given point of time; in the later, psychological attitudes related only to the flow of time. Under "wants" we include as determinants such objective facts as age, health, dependents; and the individual's pattern of tastes with respect to consumption of income. Wants of the future may be subject to a risk discount, in view of the individual's estimate of the probability of his living to a given age. Estimate of the future, in contrast, measures the degree of "pungent sense of reality" which pertains to the individual's visualization of future want fulfillment. Future incomes and wants are assumed to be accurately estimated; but how vivid are they to the individual today? The answer will doubtless turn on psychological matters where the economist should not tread; but the community's mores will determine the prestige connected with a given pattern of consumption expenditure, and so affect the general pattern of consumption in which the individual wishes to lay out his life—say, an increasing level over one's life span of real welfare. Aside from this social influence, there are likely to be purely personal elements of psychology operating.

We can illustrate the meaning of the three "estimates of the future" by taking (b) as an example. "Neutral estimate of the future" signifies indifference with respect to the time when a want fulfillment is received. This is *psychological neutrality with respect to time*. Such neutrality does *not* mean that an individual is indifferent whether he has a marginal unit of income to consume now or in the future, for this indifference rests in part upon an objective, a non-psychological fact: the level of income now, and its expected level in the future. If an individual has a "neutral estimate of the future" and expects his wants to remain at a constant level, he desires an equal quantity of goods for every period of his life span: he tries to allocate any heap of resources available to him so that his objective, real income is constant over each time period of his expected life. In other words, with "neutral estimate of the future" the desired time shape of income is flat if wants are expected to be constant. But wants may be expected to decrease, as through change in tastes or diminution in number of dependents, or they may become uncertain because life itself is uncertain. In such case the individual would prefer to allocate his income more abundantly

life." This element we exclude from our definition, taking account of it separately. Our "underestimate" specifically does not imply any necessary element of error or wrong estimate in an individual's attitude toward future satisfactions. Böhm-Bawerk does include the implication of a possible mistake in his use of the term: "Wir unterschätzen systematisch unsere künftigen Bedürfnisse und die Mittel, die zu ihrer Befriedigung dienen." (*Kapital und Kapitalsins, II, Positive Theorie des Kapitals*, Erster Band, Vierte Auflage, Jena, Gustav Fischer, 1921, p. 332.)

to the present and near future than to the distant future. To generalize: no matter how the level of wants should vary over time, the desired allocation of consumable income would vary also so that the marginal utility of income *at the time it is consumed* is constant.³

But with "underestimate of the future" the desired allocation of consumable income would be such that the marginal utility of income at the time it is consumed is greater, if consumption is to take place in the future rather than in the present. And with "overestimate of the future," income would be allocated so that its marginal utility at the time it is consumed is less, if consumption is to take place in the future rather than in the present.

The relation of these three elements—estimate of the future, levels of wants, and levels of incomes—in determining when a unit of real income is desired for consumption, is most easily visualized in the context of a Fisher map of an individual's system of time preferences⁴ (Figure 1). On the x-axis is represented present income, on the y-axis future income, say, one year hence.⁵ The curves 1, 2, 3, . . . are indifference curves, connecting points of the same total utility for the individual; that is, each curve illustrates his time preferences at certain particular levels of present and future income. We define the concept of "time preference" as the proportion between two quantities *A* and *B*, where *A* is the amount of future income which will just compensate the individual for the loss of *B*, a given amount of present income. The concept may be either marginal,⁶ or may be valid as an average over a considerable range of income transfer.

The curves are drawn convex to the origin on the plausible ground that if present income is high enough and future income low enough, a small gain in future income will compensate one for a large loss in present income; that greater compensation is needed as one moves to the left and up; until there are converse results when future income is very high, present income low. The general character of adjustments will not change if this rule of convexity does not hold for special income ranges. As with indifference curves generally, any combination of

³ An individual's given estimate of the future might be valid over a limited time range only; and even for that time range it might occasionally shift drastically.

⁴ I. Fisher, *Theory of Interest* (New York, Macmillan, 1930), chap. X.

⁵ These are to be taken in money terms. If prices are expected to change, adjustment must be made for future income. The adjustment of n years cannot be represented on a graph, but is similar in principal. Each year r , of the n years, is related to $r+1$ as indicated.

⁶ So that for neutral marginal time preference, the slope of the indifference curve at the relevant point would be 1; with time preference for the present, the slope would be greater than 1; with time preference for the future, the slope would be less than 1. (The slopes of lines downward sloping to the right are taken in all cases as positive.)

incomes represented on curve 3 is preferred to any combination on 2, which in turn is preferred to any on 1, etc.

If we have developed such a map of time preferences for an individual out of curious scrutiny of his behavior or from inquisition, we can read off, for any given values of present and future incomes (item (3) of page 81), whether the individual prefers to have a marginal unit of income for consumption now, or a year hence. Or, stating the same preference in the phrasing suggested above, we can specify for given present and future incomes his "marginal rate of time preference," or the quantity of future income which will just compensate the individual for loss of one unit of present income. This "marginal rate of time preference" can be viewed as depending on two elements: first, the wants of the individual now which, taken in conjunction with today's income, determines the marginal utility of today's income; and the individual's estimate of his wants a year hence ("wants" being item (2) of page 81), which taken in conjunction with the income of a year hence determines the marginal utility of that income.⁷ Second, the marginal rate of time preference depends in addition on the present valuation by the individual of this future marginal utility, or as we have called it, his 'estimate of the future' (item (1) on page 81).

II

(1) It is likely that the market rate of interest will differ from any one individual's marginal rate of time preference before borrowing or lending possibilities are taken into account. Then he can improve his position by borrowing to increase present income or lending out of present income. Suppose that an individual considers himself no better and no worse off if he gives up \$1.00 today, to receive back \$1.05 a year hence. This ratio, 105/100, is shown in Figure 1 (at present income OA and future income OC) as a/b . It is possible that the market rate of interest for riskless investment is 8 per cent. The line RR' represents this rate, its slope DE/DB being in the ratio of 108/100. In such case the individual improves his situation by lending, moving to the highest indifference curve attainable by him through giving up DB of today's income to gain in exchange an addition of DE to his income a year hence.

Similarly, at a lower interest rate than 5 per cent the individual will improve his position by borrowing.⁸

⁷ There is the complicating factor that savings involve for many individuals a significant current utility, irrespective of whether or not the income saved will in the future actually come to be consumed. To allow for this we can refine our statement: the present marginal utility of future consumption will be understood to include any valuation set by the individual on the accomplishment of current saving.

This complication was suggested to me by Professor Paul A. Samuelson.

⁸ We use the term "individuals" to mean all units making decisions with respect to

(2) Aside from opportunities to increase his satisfaction by borrowing or lending at the going rate of interest, the individual may be able to alter his income in year 2 by devoting some of the resources available to him in year 1 to "productive" uses rather than consuming them. Business firms especially are confronted with a considerable range of

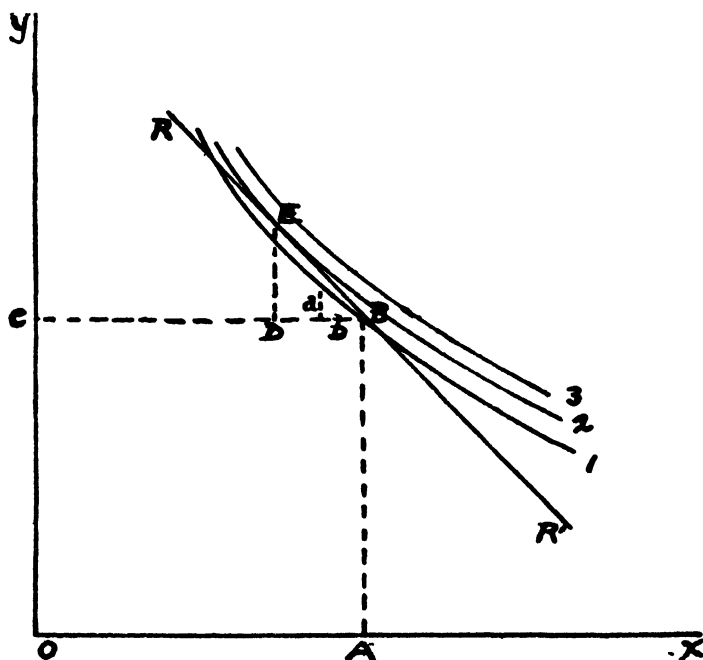


FIG. 1

choice in diminishing this year's distributed income in order to obtain assets with which they hope to increase future income. Assuming, as we must, that income for all years other than the two under consideration is constant, the individual will find that, with *any given* income for year 1, a certain maximum income for year 2 can be obtained.¹⁰ Sup-

disposition of assets, including firms, but excluding central banking authorities whose relevant decisions had best be taken as data. The distribution by a firm of any part of its assets to its owners is then equivalent to "consumption" by a private individual. (Alternatively, the decisions of firms with respect to disposition of their assets might be viewed as pro-ratable among the individuals who collectively own the firms. If we keep our theoretical bookkeeping straight, the net result should be the same for the whole society.)

⁹The concept of "productive" will be defined below.

¹⁰Time is supposed to remain stationary within a given "year," to lapse from one year to the next. Cf. Fisher, *op. cit.*, pp. 264-66, 259.

pose we call the curve connecting such points of maxima a Yield curve¹ (*HM* of Figure 2). No point to the left of this curve will be chosen by the individual since it represents a less than optimum use of resources; and all points to the right are unattainable.¹²

But what is convenient to put into this concept of Yield? At this point we diverge from the Fisher analysis. We do so in deference to the analysis and emphasis in recent years on the motive of liquidity—or better stated, perhaps, of the absence of illiquidity—for holding as-

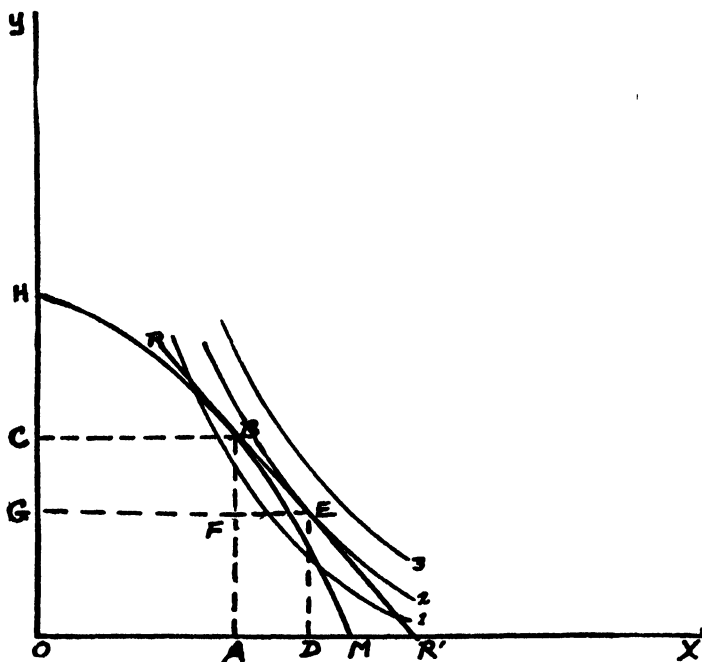


FIG. 2

sets. During the years of the locust we have become acutely aware that individuals may, in the face of uncertainties about future returns, find it advisable to hold a considerable portion of their assets in the form of money; with consequent repercussions on the economy. To generalize, each individual faces for himself the decision of not only how to divide his income between consumption goods and earning assets

¹² A similar curve is called by Fisher the Investment Opportunity curve (p. 264); and by Bradley the Income Opportunity curve (*Quart. Jour. Econ.*, Nov., 1943, p. 134.)

¹³ We assume for simplicity that there is increasing opportunity cost throughout; i.e., that the curve is convex to the origin, though it may in fact take other forms in special areas. If so, as may be seen below, a small change in the market rate of interest will induce the individual to "jump" from one adjustment to another.

(money, securities, and real capital goods), but also another decision, which over the whole economy may at a given time be far more important: in what form to hold his already accumulated assets. An important element in that decision will be the liquidity value of given assets.

We should like to recognize the importance in decisions of this (Keynesian) liquidity value of assets, while still retaining the advantages of simplicity and clarity in the (Fisher) indifference curve representation of time preference.¹³ We have here another margin, the significance of which merits its being given explicit place with "productivity," interest, and time preference. We try to meet the problem of its representation by incorporating the liquidity element in the yield curve. Our justifications for doing so are (a) that individuals differ one from another, both for subjective and objective reasons, in their estimates of the liquidity value of holding stocks of assets, just as they do with respect to the "productivity" value of assets; (b) that the marginal liquidity value to an individual of holding a given asset is not a constant, but a function of the quantity of the asset, at least up to a certain point—true also of the individual's estimate of the marginal product of an asset; (c) that the individual's estimate of the liquidity value of adding an asset to his holdings is his estimate of the expected gain (loss) to be derived from possessing the power of disposal of the asset. It is the expected *indirect* gain (loss), and immediately comparable with expected direct gain or "product." Hence liquidity value, we argue, can logically be put with other elements of the individual's calculation of total gain or loss from possessing assets.

The desirability of holding a specific asset over time—a commodity, a security, or money—rather than consuming it (if possible) or exchanging it for another asset¹⁴ may be looked upon¹⁵ as dependent in part on two qualities of the asset: *P*, its expected advantages for pro-

¹³ Another and vital weakness of the time preference theory as an explanation of the level of interest is given below, pp. 89-90.

¹⁴ Interest can be looked upon as the percentage return on securities (or inversely, as measured by the price of securities bearing a given return); or as a percentage return on loans of money (or inversely, as measured by the present price at which future money is sold). It seems simplest to us here to view interest as given by the rates at which securities are exchanged against money. Selling money (for securities) is lending; selling securities (for money) is borrowing. The price of a given security varies inversely with the interest rate.

Securities differ from each other with respect to their life span, their promised or normal return, and the degree of risk pertaining to realization of this return. We use the phrase "the interest rate" in the following to refer to the rate of return on a riskless, perfectly liquid investment; e.g., on call loans. Higher returns then would be explained by risk and/or illiquidity.

¹⁵ Partly following J. M. Keynes, *General Theory of Employment, Interest and Money* (New York, Harcourt Brace, 1936), pp. 225-29.

duction of income, minus such costs and wastage and risk of theft, etc., as holding it entails; and L , its advantages as being a pool of liquid purchasing power. The algebraic sum of these, $P + L$, expressed as a per cent of the particular asset, is called by Professor Robertson a "commodity rate of interest," and by Lord Keynes an "own-rate of interest."¹⁶ It measures the percentage excess over a given amount of an asset today, of the amount of the same asset the individual would be willing to accept in exchange in the future; e.g., a year hence. That is, it measures the percentage increment, in terms of quantity of an asset, which possession of that asset promises to an individual.

A third factor needs to be taken into account. We have measured the return in terms of each specific commodity, and the given commodity might not have as high a price in terms of money a year hence as it does today; or it might have a higher price. To all individuals concerned with maximizing present value of assets, or with some similar concept of objective worth maximizing (and this will include all consumers who have access to a market where they can sell the asset), the possibility of change in the price of the asset on the market will be a conscious problem. A percentage allowance for the expected price change in the asset, C , must therefore be considered together with the foregoing P and L in order to get a figure for the money worth, in percentage terms, of possession of a quantity of the asset. The formula¹⁷ will read: $(1 + P + L) (1 + C) - 1$. This formula may be applied to a marginal unit of an asset to measure what we call the Marginal Yield of the asset.

Every individual will try to adjust his holdings of assets so that the yield of every type of asset will at the margin be equal; though the

¹⁶ D. H. Robertson, "Some Notes on Mr. Keynes' General Theory of Employment," *Quart. Jour. Econ.* (1936-37), p. 184; Keynes, *op. cit.*, pp. 222-29. A partly similar concept is suggested by P. Sraffa, "Dr. Hayek on Money and Capital," *Econ. Jour.* (1932), pp. 49-50, and "Money and Capital: A Rejoinder," p. 251.

If the spot price of wheat is \$1.00 a bushel, and the contract price for delivery one year hence is \$1.05 when the money rate of interest is 4 per cent, then \$1.00 will buy one bushel of wheat for immediate delivery; or alternatively it will buy (\$1.04 a year hence which will purchase approximately) 0.99 bushels a year hence. Since a bushel of wheat today can be exchanged for 0.99 bushels a year hence, the wheat rate of interest is minus 1 per cent.

It is only because of our habit of phrasing all prices in terms of "money" that the money rate of interest is explicitly brought into the above calculation. The wheat rate of interest could logically be expressed directly instead of through the intermediation of money.

¹⁷ For example, suppose that 100 bushels of corn is expected to contribute to the production of a farm a year hence (perhaps in the form of added milk or meat) an amount which will purchase 120 bushels of corn then. P is then 20 per cent. There may be some liquidity value to the farmer from the possession of the corn, aside from its use in production, say 2 per cent. But suppose the price of corn is expected to fall 10 per cent from this year to the next. Then the gross return in value terms is $(1 + .20 + .02) (1 - .10)$, or 109.8 per cent; the incremental yield is 9.8 per cent.

relative importance of the constituents of the yield, P , L , and C , will differ from asset to asset. And different individuals will estimate differently both the marginal yield and the constituents of the marginal yield of a given asset.

Whatever the relative importance of the elements, the complete formula, $(1 + P + L)(1 + C) - 1$, will define the range of those optimum income possibilities confronting an individual which we have called the Yield curve.¹⁸ The curve represents the direct and indirect maximum income possibilities confronting a given individual through holding assets and/or utilizing them in production.¹⁹ The individual will increase or decrease his holdings of a given asset (commodities, securities, or money) or shifts between assets in accord with what promises the largest yield.²⁰

The RR' line represents, it will be remembered, the riskless rate of interest on securities bought out of present income or sold to increase present income. This kind of decision with respect to lending or borrowing must, like all other decisions of the individual, conform to the general principle that the marginal gain (loss) from any action will at equilibrium be equal to the marginal gain (loss) from any other action. We simply separate out, from a homogeneous group of decisions, one kind of decision for special representation. The securities may or may not be newly issued; but a discrepancy between the flow of net money savings and the value of newly issued securities will evidently tend toward equilibrium readjustment in prices—that is, toward an equilibrating interest change—and in holdings of all securities, and in fact of all assets.

Keynes gives the formula (*op. cit.*, p. 227) as the equivalent of $P + L + C$. But the correction for price change must logically be applied to the total own-yield (*e.g.*, to 122 per cent), not to the additional own-yield only (the 22 per cent in our illustration). And the correction is not to be applied by addition or subtraction, but by multiplying. (Similarly, on p. 224, the formula $x-a$ is approximately true only if a is small. The accurate formula is $\frac{1+x}{1+a} - 1$). Cf. Keynes, *General Theory*, pp. 224-28.

¹⁸ The Keynesian marginal efficiency of capital is the internal rate of return over cost earned on a marginal investment, couched in money terms. We have not defined our P and L above as applying only to an investment which barely pays its way. But if we did, then the marginal efficiency of capital equals $(1 + P)(1 + C) - 1$. The marginal efficiency concept does not include such liquidity value as certain assets may possess. Cf. *General Theory*, Chap. 11, 15; p. 224.

¹⁹ This curve, like the RR' line, must represent a riskless return. For on the y -axis is plotted sure future incomes, not incomes subject to a risk discount. Higher nominal returns therefore must be offset by liquidity and/or risk disadvantages.

²⁰ We have defined the yield curve, like the map of time preferences, in terms of money. Both can be defined in real terms, for single assets, or for groups of assets. The latter may be a relevant way of looking at the situation in a barter economy, or for individuals who do not think in terms of money values.

At this point we should review a crucial weakness of this theory if we are urged to accept it as an *explanation of the level* of the interest rate—a weakness which remains even after we have expanded the original theory by putting liquidity preference into the yield curve. The criticism has been made convincingly by Scitovsky²¹ and others that interest is a price into whose determination the factor of accumulation and disaccumulation of stocks is peculiarly important. Shifts among assets are usually²² much more important in determining the interest rate than the net addition to assets in any moderate period of time, say a year, because the value of accumulated assets is many times as large as the annual addition to assets.²³ More exactly, the volume of transactions involving already existing assets is large compared to the volume of transactions in newly created assets. Hence in our graphic representation, the bulk of the transactions affecting the interest rate take place through shifts among assets *within* the yield curve; and the transactions shown along the market interest line RR' will be relatively few and unimportant.

One is led to put praise and blame of the time graphic-time preference theory together in one breath: that it represents with much clarity an influence on the rate of interest which is normally unimportant. It does not adequately *explain the level* of the interest rate; it does vividly *illustrate the relation* of time preference to the interest rate. The latter, though it seems in general a fault of emphasis, is for our special purpose a virtue, since the concern of this paper is the relation between certain time preference concepts, and interest and the yield from capital assets.

The aim of the individual is to maximize his satisfaction, so far as the limitations of available opportunities permit. He therefore (Figure 2) uses his resources to produce OA income this year and OC income for next year. He borrows AD (an addition therefore to this year's income) at the cost of diminishing next year's income by CG . His marginal rate of time preference (measured by the slope of curve 2 at E), is equal to the interest rate (measured by the slope of RR'), which in turn tends to equal the marginal yield of every asset held (measured by the slope of HM at B).²⁴ At such an adjustment, he has arrived at the highest income situation possible to him.

²¹ "A Study of Capital and Interest," *Economica*, August, 1940.

²² There is the possibility that sometimes the amount of issue of new securities, net real investment, or increase in quantity of money will be strategically important in influencing individual estimates of the yield possibilities of other assets.

²³ Immediately, the value of existing securities is large compared to the value of the annual issue of new securities; and "speculative" funds already in existence are large compared to the annual change in the quantity of such funds.

²⁴ In each case, of course, the percentage increment is given by the slope minus 1.

(3) A supply curve of savings can be derived easily from the above analysis. If we take the income of the individual as fixed, we can plot from the data the funds he would desire to borrow for or lend out of income at various interest rates.²⁵ Assume (Figure 2) this year's income as OA and next year's income as OC . Then at the rate of interest indicated by the slope of RR' , he will wish to borrow AD . At higher interest rates (that is, with RR' lines of steeper slope) he will wish to borrow less, until finally he becomes a lender. We can plot against the interest rate (Figure 3A) the amounts of present income remaining

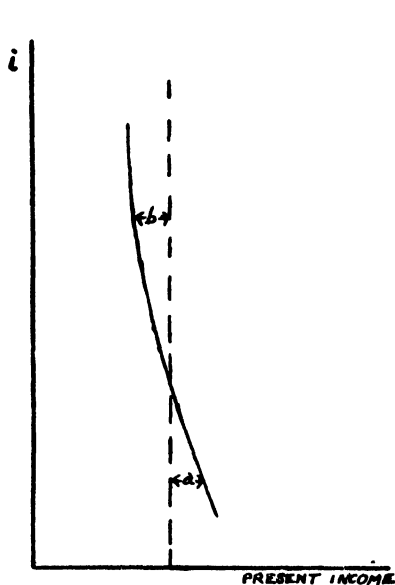


FIG. 3A

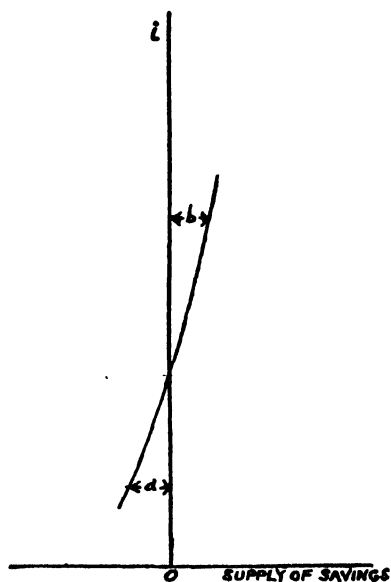


FIG. 3B

to an individual after he has lent or borrowed; or we can plot this negatively (Figure 3B), showing the traditional relation between interest and supply of loanable funds out of income.

Where investment opportunities exist for the individual (firm), present and future income cannot be assumed fixed, but, as the interest rate changes, will vary in accord with the rule of tangency between the RR' line and the yield curve.²⁶ And since a change in the interest rate will affect indirectly the anticipated returns from holding assets, the shape of the yield curve will change somewhat as RR' rolls around

²⁵ This follows Fisher, *op. cit.*, pp. 260-62.

²⁶ *Ibid.*, pp. 269-71; pp. 277-80.

it. With these qualifications,²⁷ we can draw a supply curve of loanable funds for such an individual.

Two further notes may be in order before leaving this subject: (a) It is persuasively argued that, within the relevant range, the supply of savings is unresponsive to changes in the interest rate. If so, we have implications about the shape of the indifference curves in the relevant area. Patterns leading to this result can easily be drawn.²⁸ (b) With respect to the time preference schedule (indifference curves) applicable to firms, it is evident that if their objective is to maximize present value of assets, their indifference curves are straight lines parallel to RR' (Figure 2), where RR' is drawn so that its slope minus one equals the interest rate.²⁹ This of course is a special case.

III

To review a few conclusions on neutrality with respect to time: We have held that when there is "neutral estimate of the future" (indifference as to the time when a given want-fulfillment is received), the influence of the psychological element in time preference is evidently

²⁷ The above is a partial equilibrium analysis. The method can be used to derive a short-run supply curve of money savings valid for the whole society only by deserting the now unreal assumption that incomes or yield opportunities are fixed. For the changed amounts of investment consequent on the changed interest rate directly imply a changed level of aggregate income, from which any given interest rate will elicit a different supply of money savings. We may of course, if we still want to use this method, make fairly heroic guesses about the amounts of successive changes in incomes and yield opportunities correlated with successive changes in the interest rate.

For a long-run analysis the method remains applicable—and for this purpose we use it below—if we are willing to grant the thesis that prices will change ultimately to bring about full employment (or will keep falling at such a rate as to bring about full employment!), whatever the supply of money savings a given interest rate calls forth. Incomes and yield opportunities will then be those which would exist under full employment conditions at the various interest rates.

²⁸ Time preference may logically be ignored because it is considered unimportant: but still in a general theory—perhaps a Lange version?—there might well be advertised room for the option which wealth owners have of not only holding their assets in the form of buildings or grain or money; but also, as Robertson fears, of turning their assets into beer. May we not still respectably talk of an interest bribe to restrain consumption? Lord Keynes apparently would not seriously object to this addition to the building stones of his theory. (*Econ. Jour.*, June 1938, p. 321). It seems evident that this is not a barren theoretical possibility only. (F. Machlup, "The Consumption of Capital in Austria," *Rev. Econ. Stat.*, January 15, 1935.)

²⁹ If this is not evident, it can be seen from Figure 2. The optimum adjustment we have described would be at OA present income, and $OC (= AB)$ income for next year. But AB income next year, discounted at the going interest rate indicated by RR' , would have a present worth of AR' . Total present value of income would be OR' , the maximum possible through any attainable combination of this year's and next year's incomes.

An imperfect capital market (uncertainty as to the prices at which assets bearing given yields can be sold) makes that decision of the firm which will maximize present value of assets also uncertain.

removed. The marginal time preference of an individual can be viewed as depending upon his "estimate of the future," his present wants and future wants, and his present income and future income. The psychological element in time preference is not necessarily removed when we have "neutral (or zero) marginal time preference"; *i.e.*, when the marginal rate of substitution along an indifference curve is one to one. We are trying to isolate the psychological aspect of time preference. The latter concept illicitly introduces the flow of objective incomes into an equation from which they were supposed to be removed.³⁰

We neglect below the elements in interest of risk of default and cost of lending, assuming there exists only one, riskless grade of securities. The way in which risk and cost of lending figure in actual interest rates is clear enough. Risk will always be an element in interest in any society in which estimates of opportunity and of character are not completely accurate; and cost of lending interposes a hurdle to be cleared, and hence a block to complete equality between the marginal rate of substitution between present and future income, and the marginal rate of return on assets.

IV

We now try to use the tools we have described, to arrive at a conclusion for the ancient problem of the level of the marginal yield of capital, marginal time preference, and interest, *ceteris paribus*, and specifically, when the psychological element in time preference is removed. First let us assume that we are in a range of yield opportunities where capital assets generally have a positive yield. Is this situation compatible with a neutral estimate of the future?³¹ We shall need to block out changes in the population, in tastes or distribution of income, and techniques.

The assumption that capital assets have a positive yield³² is in our

³⁰ It is on this ground that we justify the introduction of the tolerably awkward concept of a discount (premium) on future satisfactions.

³¹ That is, neutral estimate of the future at least within the range of incomes we are interested in.

³² Or, if we prefer other terminology, "if the margin between cost of factors and price of product has not been competed away." The anticipated (direct or indirect) product is valued at a higher amount than the factors embodied in the capital and used up. There is another concept of positive yield of capital, which we do not imply: that as capital equipment is added in a productive process, output is increased; and if elasticity of demand is greater than one, value of output is also increased. No account is taken, by this latter concept, of the cost of the capital equipment.

"Imputation" of the value of a produced good to the factors entering into it surely involves nothing different from the ordinary competitive process. Imputation which could not "allow the slightest permanent gap" between product and factors may well exist in a stationary society and elsewhere as a psychological matter. But with respect to realized

terminology the condition that $(1 + P + L)(1 + C)$ is greater than one. This is evidently an *ex ante* concept: we are concerned with the actions of producers and speculators who expect positive returns on real investment, though to the extent that the society is stable this distinction makes little difference. The producer would in a barter economy try to borrow the factors to invest from their owners; and be willing to pay back at the end of the process their equivalent plus, if he had to, a part of his gains. In a monetary economy he will be willing to pay back what he had received plus part of his gains to the lenders of the purchasing power without which he cannot secure command over the factors.

Will a premium be required by these potential lenders to induce them to acquire securities? We have assumed neutral time propensity, and, as an aggregate for the whole of society, an anticipated unchanged level of wants.³³ Lending (that is, the transfer of units of available income from the present to the future) implies, with constant wants, that the marginal utility of the remaining present income will be greater than the marginal utility of future income. Hence individuals will in the aggregate require a premium (positive interest) to induce them to lend.³⁴ The greater the borrowing by business men, the higher the premium will be, and the lower the marginal yield of capital will be, until an equilibrium point is reached.

What other changes in conditions might coöperate in leading to equilibrium? (1) Underestimate of the future might arise. A disposition to discount future satisfactions would tend to choke off sooner the supply of loans, at some interest rate greater than zero. (2) It is also possible that wants might be expected to decrease; but for this there seems, as an aggregate and with a stationary population, no reasonable justification. Both of these changes deny our assumptions. (3) Finally, real income might be expected to increase (aside from the effect of loan repayment on incomes) because of effect on productivity of increased real capital. (a) If money incomes are expected to be greater, prices remaining unchanged, then individuals will require a premium to induce them to lend, for they expect to be better provisioned in the future than at present. The marginal rate of substitution of future

market prices imputation cannot exist other than as a force, which like other forces tends toward equilibria which are constantly being approached, but may not be reached.

At any given time a gap may exist between value of capital goods and value of its product because capital is scarce. And it may be scarce because of various economic and non-economic reasons.

³³ A resultant of unchanged population and tastes.

³⁴ We need not make the rigid assumption that all individuals have identical time preference schedules.

for present money income is greater than one. This unwillingness to lend unless offered a premium tends to choke off more abruptly than before the supply of loanable funds, and leads to an equilibrium interest rate still greater than that resulting from our original assumption. (b) If prices are expected to drop (in view of an anticipated increase in output resulting from real investment) while money incomes remain constant, then there is divergence between the money rate of interest and expected real rate of interest. A money rate of interest less than zero is required in order for real interest to equal zero; but real interest must be greater than zero in order to induce persons expecting an increase in real income to lend. Opposing effects from this cause tend to cancel out toward a zero rate of interest; but the conclusion of the positive rate as consequential from our original assumption still holds.

Thus far in this section we have said nothing about the element of liquidity. If for any reason there is possibility of a rise in the interest rate in our conjectural society, then current buyers of both newly-issued and "second-hand" securities will require a premium to induce them to give up command over cash. From this reason a larger proportion of the assets of the society will, at any given interest rate, be wanted held in the form of cash (rather than securities or real capital) than would otherwise be the case. This in turn restricts the formation of real capital.

The interest rate will be higher, the greater is the yield of capital assets; and, as an element in this, the greater is liquidity preference. It will be higher to the extent that there exists what we have called underestimate of the future.³⁵ It will be higher to the extent that individuals expect their money incomes to rise relative to their (money) wants.

V

This cause of interest would not exist if capital assets had no positive yield in value terms; that is, if $(1 + P + L)(1 + C) = 1$. To isolate the effect of time-consuming methods of production only, we add another element to our list of those "held constant." We have already assumed a stationary population, unchanged tastes and distribution of income, and a neutral estimate of the future. We now add the assumption that capital assets have grown so abundant that their yield

³⁵ Any given change in the level of estimate of the future would probably involve a greater change in investment in a rich society than in a poor society. For in the former where present and (in prospect) future wants were well cared for, there would probably be a smaller difference in current utility resulting from the transfer of one unit of income between the present and future; and hence any given change in propensity would require the shifting of more units of income between the present and future.

is zero.³⁶ Hence, the product of capital just equaling its cost, there is no incentive either to expand or to contract the output of capital equipment.

But production requires time, and the final output is received at a later point than that at which the factors contributed their services. Will any discount arise on the value of product from this cause? Under conditions of constant wants—which continue to appear a plausible assumption as the aggregate for the whole economy—consumers would allocate any increment of income over their life span so that the total quantity of income was in every period the same. What would be the expectation in our assumed society with respect to the production of income per time period? In a “stationary society”—in which capital had multiplied to the indicated extent, the technical horizon remained unchanged, and quality and quantity of factors was constant; or in which a change in one element was just offset by compensating change in some other element(s)—income would logically, on the basis of past experience as well as of anticipation, be expected to be constant in every time period. With wants expected to remain at constant levels also, there would be no disposition either to postpone or to accelerate the consumption of income. Marginal time preference would be equal to one.

One final element should be considered specifically. Will liquidity preference exist? Only if there is expectation of some change in the situation: of a change in the yield of capital, estimate of the future, or wants and incomes expectations. If our assumptions are expected to remain valid, there is no room for liquidity preference.³⁷

In such a stationary flow—though its specifications are rigid enough—the liquidity preference theory breaks down as an element in the explanation of interest, either a money-rate or commodity-rate of interest; and the yield of capital cannot explain interest. The level of estimate of the future alone would explain its appearance, since in the objective facts of the economic environment are to be found no bars to compel the psychology of the individuals of the society to be such as to lead to neutral estimate of the future. With, for example,

³⁶ The yield of capital will always be zero if its marginal physical product is zero (neglecting for the moment any possible liquidity advantage connected with holding particular assets). It will also be zero when marginal physical product is positive (or negative) and elasticity of demand for its product is one. These cases are not interesting since entrepreneurs would not produce at this point unless capital equipment were free; *i.e.*, unless the factors entering into capital were valueless, an unreal supposition. Hence we must mean only this: that the contribution which capital makes to value of product is just equal to the cost of the factors incorporated in the capital.

³⁷ Barring individual cases of miscalculation which in the aggregate would cancel out, and neglecting any deviation of production and consumption from the norm for non-economic causes.

underestimate of the future, positive interest arises, restricts the formation of real assets, and leads toward an equilibrium in which the yield of a marginal capital asset is positive and equals the positive money-rate of interest.³⁸ Such a society may still be "stationary," may just reproduce the new lower level of real assets.

Overestimate of the future will tend toward an equilibrium where there are negative rates of interest—to the extent there are risks or costs involved in holding assets, uncompensated for by liquidity or productivity advantages. Underestimate of the future tends toward a positive rate of interest.

If, conceivably, there is anticipation of a falling level of wants in the future—as possibly through uncertainty of how long one will live, or because of fewer dependents—real income will be allocated more abundantly to the present and near future, and the formation of real assets will accordingly be restricted. The influence of such a factor as uncertainty of length of life might aggregate over the society to cause a diminishing quantity of national income over time. We may generalize that there must exist abstinence or waiting in J. B. Clark's stationary state or the Schumpeter circular flow, in the sense that the population might liquidate their total stock of capital goods, leaving fishermen again catching fish by the tails with their bare hands, if underestimate of the future, want-income relationships, and risk factors³⁹ were such as to achieve this considerable result. The reproduction of existing capital goods is surely not "automatic," but only a possible neutral result of opposing and diverse tendencies.

A varying level of expected wants over time would lead to the disproportionate accumulation of assets close to the present, to the middle future, or more distant future. As before, the rate of flow of social income depends on the aggregation of individual decisions.

In general, a change in any one of the elements of the situation will affect calculations throughout the economy, and lead to a new equilibrium in which all variables are likely to have new values.

VI

The existence of a zero money-rate of interest in a stationary society can be viewed as the resultant of a number of factors: (1) the net advantages for the production of income of capital assets; (2) the

³⁸ If the exchange of assets against "money" is blocked (as, *e.g.*, in a frontier society where money is not commonly used), marginal yields may differ as between assets, implying necessarily different own rates of interest, and restricting accordingly the use of specific assets in productive processes.

³⁹ Subjective, which individuals might face even though the society as a whole were completely stable.

cost, wasting, and risks involved in holding the assets; (3) their possible liquidity advantages; (4) present wants and the expected flow of future wants; (5) present incomes and the expected flow of future incomes; and (6) the level of estimate of the future. Variation in any one of these will suffice to set up a new equilibrium in which, though the society may conceivably still be stationary with respect to the quantity of real capital assets, there will be a positive or negative interest rate. Due to differences in the relevance and amounts of price change expectations with respect to individual assets, commodity-rates of interest may differ continuously from the money-rate and among themselves. A neutral estimate of the future—that is, indifference as to when a given satisfaction is received—is compatible with positive or negative rates of interest in a world in which wants and incomes are not expected to run congruently.

INDIFFERENCE CURVE ANALYSIS APPLIED TO THE FOOD STAMP PLAN

By JOSEPH D. COPPOCK*

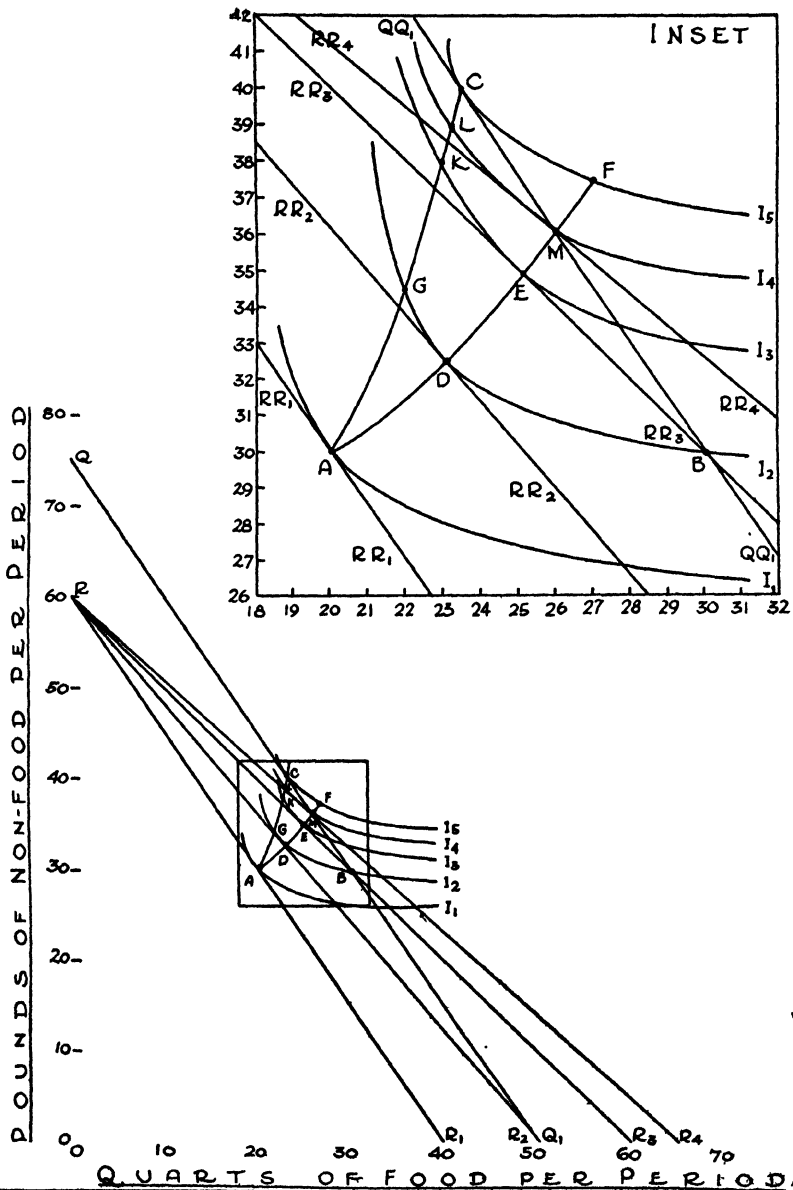
This article is devoted to the discussion of the effects of a "special purpose money" program, such as the Food Stamp Plan, upon the expenditure patterns of individual participants. The Food Stamp Plan was a program of the Department of Agriculture for the disposal of surplus commodities to needy persons and was in operation from 1939 to 1943. Indifference curve technique is employed in this analysis. The method used is an adaptation of that of J. R. Hicks, as set forth in his *Value and Capital*.

The accompanying chart provides the essential assumed data for the analysis. The assumptions involved in the chart are such as to make the situation of the hypothetical individual reasonably typical of actual situations.

It is first necessary to explain the chart in detail. Let it be supposed that the individual devotes all of his income to two commodities, food (on the x -axis) and non-food (on the y -axis), and that his income is obtained and expressed as non-food. The unit of measure for food is taken to be the quart; for non-food the pound. The lines RR_1 , RR_2 , QQ_1 , etc., are sometimes designated, in this type of analysis, "outlay lines," because any "consumption point" on one of these lines (say, point A on RR_1) shows the amounts of food and non-food which could be purchased by this person with the outlay of a given income (income 60 pounds of non-food or 40 quarts of food in the case of RR_1). They are also designated "price lines," because the slope of the lines shows the "price" or exchange ratio of food, in quarts, per unit of non-food, in pounds (or *vice versa*). The coördinates of any point on a line such as RR_1 express the amounts of food and non-food obtained by expending a given total income. Thus at point A on RR_1 20 quarts of food and 30 pounds of non-food are obtained. The x -intercept (R_1) shows the amount of food (40 quarts) which would be obtained if all the individual's income were devoted to food; the y -intercept (R) shows the amount of non-food (60 pounds) which would be obtained if all his income were kept in the form of and devoted to non-food.

* The author, now in the United States Naval Reserve, assigned to the Office of Strategic Services, wishes to acknowledge the very helpful suggestions made by Dr. Peter G. Franck, Office of Price Administration. The views Mr. Coppock expresses are his personal opinions.

CHART (SEE INSET FOR DETAILS)



Viewed as a price line, RR_1 shows that the ratio is $2/3$ of a quart of food per pound of non-food, or $1\frac{1}{2}$ pounds of non-food per quart of food. Although there need be no misunderstanding in referring to these lines as price lines, it is usually preferable in this discussion, because only two commodities are involved, to call them "exchange-ratio lines." Exchange-ratio lines RR_2 , RR_3 and RR_4 show the effects of varying the exchange ratio between food and non-food: food becomes cheaper in terms of non-food (and conversely, non-food becomes dearer in terms of food) as we move from RR_1 to RR_4 . For example, the exchange ratio expressed by RR_4 is $13/12$ quarts of food per pound of non-food, or $12/13$ pounds of non-food per quart of food, whereas with RR_1 it takes only $2/3$ of a quart of food to obtain a pound of non-food, or $1\frac{1}{2}$ pounds of non-food to obtain a quart of food. In other words, the price of food declines from $1\frac{1}{2}$ pounds of non-food per quart to $12/13$ pounds of non-food per quart. (The particular ratio, $12/13$, represented by RR_4 is chosen for use in the example below.)

When the exchange-ratio line in operation is RR_4 , total income is still 60 pounds of non-food, but becomes equivalent in exchange value to 65 quarts of food. It is customary to say that income has not risen under these conditions, because income, assumed to be received in the form of non-food, remains at 60 pounds of non-food. Obviously this is a restricted meaning of "income," and should be literally understood as signifying only that income measured in the receipt medium of non-food has not changed. Exchange-ratio lines above and parallel to RR_1 , such as QQ_1 , indicate larger incomes but with food and non-food having the same exchange ratio as in the case of RR_1 ; lines below and parallel to RR_1 would indicate lower incomes; lines neither parallel to RR_1 nor having the same x - and y -intercepts would represent changes in both income and exchange ratio, but such lines are analyzable into these two components. In the case of exchange-ratio line QQ_1 , which shows a rise in income from RR_1 without any change in the exchange ratio, the increase in income may be measured along either axis without ambiguity, from R to Q in terms of non-food, or from R_1 to Q_1 in terms of food.

Curve I_1 is an indifference curve, which shows the combinations of quarts of food and pounds of non-food which would make this individual equally well satisfied, *i.e.*, combinations which are by hypothesis indifferently acceptable to him at any given time and under any other relevant, defined conditions. Indifference curve I_2 traces out combinations of food and non-food in the same way, but the points on I_2 represent higher-satisfaction combinations than the points on I_1 . Similarly, I_3 , I_4 and I_5 are still higher indifference curves. The entire family of indifference curves of this individual, from which these five are

taken for purposes of the example used in the analysis below, represents the taste pattern of the individual. A person seeks to dispose of his income so as to place himself on the highest indifference curve in his system that prices will permit. The taste pattern must be distinguished clearly from the expenditure pattern, *i.e.*, the division of income among various uses, which is determined by three factors, namely, taste pattern, prices, and income, assuming, of course, that these three factors are independent of the expenditure pattern. The fact that the segments of the indifference curves shown in the chart have a negative slope reveals that this person considers food and non-food substitutes for each other, *i.e.*, he is just as well satisfied with a certain amount less food if he has a certain amount more non-food, and *vice versa*. The fact that the curves are convex to the origin means that the person has a diminishing marginal rate of substitution of food for non-food, *i.e.*, he will accept additional units of food in place of non-food (say, rightward from point A on I_1) only if he receives continuously larger amounts of food per unit of non-food given up. The shapes of the curves in the diagram are arbitrary, though plausible. Indifference curves are extremely difficult to obtain empirically.

II

We now consider the effects—in terms of satisfaction to the individual and the increase in food purchased by him—of (1) a reduction in the price of food and (2) an increase in income involving the same cost in terms of non-food. Under each case we also consider the effects of a defined restriction on the individual's freedom of consumer choice. The cost of the price reduction or of the income increase is calculated at the original exchange ratio of $1\frac{1}{2}$ pounds of non-food per quart of food and the cost amounts to 15 pounds of non-food in all four of the cases analyzed below. The cost is incurred by whoever makes the food available to the individual at lower prices or increases the individual's income.

Before taking up the four cases, let us define clearly the starting position for the analysis. If the person has freedom of choice in allotting his income between food and non-food at a given exchange ratio, he will choose the highest-satisfaction combination for him, *i.e.*, the one which will put him on the highest indifference curve in his system of curves. This means, of course, that the combination he chooses freely, with a given income and exchange ratio, is *ipso facto* his highest-satisfaction combination. Thus, with an income of 60 pounds of non-food and with the exchange ratio $1\frac{1}{2}$ pounds of non-food per quart of food (as shown by RR_1), the person will choose the combination of

food and non-food represented by point A, on the highest indifference curve (I_1) which RR_1 touches (lower indifference curves not shown). The selected combination is 30 pounds of non-food and 20 quarts of food.

(1) Now if the price of food in terms of non-food were lowered, as represented by a change in the exchange-ratio line from RR_1 to RR_4 , the person would find, with free choice and with the same income, his maximum satisfaction point at M on I_4 , involving the holding of 36 pounds of non-food and the purchase of 26 quarts of food with the other 24 pounds of non-food. Thus the reduction in the price of food from $1\frac{1}{2}$ pounds to $12/13$ pounds of non-food per quart of food evokes an increase in food purchases from 20 to 26 quarts and in non-food holdings from 30 to 36 pounds. These increments combined cost 15 pounds of non-food (or 10 quarts of food) at the original exchange ratio.

(2) Had the person been denied freedom of choice in his expenditures, *e.g.*, had he been prevented from acquiring or keeping the additional non-food obtainable at the lower exchange ratio, and had 15 pounds of non-food been devoted to the price decrease, the price change would have been from $1\frac{1}{2}$ to 1 pound of non-food per quart of food (RR_3), and he would of necessity have settled at point B on the lower indifference curve I_2 , with 30 pounds of non-food and 30 quarts of food. (Conceivably, the indifference curves could be of such a pattern that I_4 would be tangent to RR_3 at B, in which case denial of freedom of choice would be unnecessary to achieve the division represented by B, because all of the person's additional economic power resulting from the price reduction would have voluntarily been devoted to food.) The interference with his freedom of consumer choice places the individual on a lower plane of satisfaction, I_2 instead of I_4 , even though the two price reductions cost the same (15 pounds of non-food). The individual would prefer to hold some of the additional non-food in accordance with his preëxisting taste pattern instead of spending it all on food. Hence, he would tend to try to improve his position—get on higher indifference curves—by moving up RR_3 from B toward E (on I_3) by evading the restriction.

(3) Consider next an increase in income for the individual costing the same as the price reductions (15 pounds of non-food). Suppose first that the individual has freedom of choice in the allotment of his income. The increased income is represented by the intercepts of line QQ_1 , parallel to RR_1 , the increase being shown either on the x -axis (10 quarts of food) or on the y -axis (15 pounds of non-food). It is clear from the chart that the equilibrium or maximum-satisfaction point under these conditions is point C, where QQ_1 is tangent to the indifference

curve I_5 . The individual is on a higher indifference curve than when he was the beneficiary of an equal-cost price reduction with freedom of choice (point M on I_4 in case (1)).

(4) If the individual were denied freedom of consumer choice and were required to devote the entire increase in income to food and also to maintain his former purchases of food, the equilibrium point would be point B at the intersection of QQ_1 and indifference curve I_2 . Thus the individual, if he abided by the prohibition, could not but allot his expenditures in the same way as in the case of the equal-cost price reduction without freedom of choice.

Certain conclusions may now be drawn. This person gets the greatest satisfaction if he receives 15 pounds of non-food in the form of increased freely-expendable income (point C on I_5). Next best to him is the price reduction with freedom of choice (point M on I_4). The other two cases, price reduction without freedom of choice and income increase without freedom of choice, put the individual who conforms to the restriction at point B on I_2 . Hence, *ex ante*, the results coincide. But in the case of the price reduction without freedom of choice, the individual is "pulled down" along RR_3 only from point E on I_3 to point B on I_2 ; whereas in the case of the income increase without freedom of choice the individual is pulled down along QQ_1 from point C on I_5 to point B on I_2 . Hence, *ex post*, the limitation of choice imposes a greater loss of satisfaction in the case of the income increase than in the case of the price decrease. From the point of view of the individual, the income increase with restriction on freedom of choice as explained is the least attractive of the four alternatives considered.

It does not follow that it would necessarily be inappropriate public policy to pursue either of the courses which involve restriction. The individual may not know what is best for him; his health and long-run welfare may well call for 10 quarts of additional food instead of an equal-cost combination involving some non-food and less than 10 quarts of additional food, even though the alternatives do not currently look equally attractive to him. Also, there may be general social reasons for imposing the restrictions, *e.g.*, the moving of more food off the hands of the suppliers. These remarks are not designed to advocate either position.

Consider now the increases in food consumption brought about by these four equal-cost alternatives. In the case of price reduction with freedom of choice, the increase in food takings amounts to 6 quarts; in the case of price reduction without freedom of choice (assuming conformance), 10 quarts; in the case of income increase with freedom of choice, $3\frac{1}{2}$ quarts; in the case of income increase without freedom

of choice (again assuming conformance), 10 quarts. Thus from the point of view of moving additional food, a price reduction with freedom of choice is superior to an income increase with freedom of choice (a yield of 6 quarts as compared with $3\frac{1}{2}$); and a price reduction without freedom of choice is likely to move more food than an income increase without freedom of choice because of the greater pressures for non-conformance in the case of income increase than in the case of price reduction. Income increase with freedom of choice is most attractive to the individual but least attractive as a device for moving food; the cases involving restriction of freedom are the best for moving food and are equally satisfactory to the individual except that the price reduction distorts the (*ex post*) expenditure pattern less than the income increase.

It is also pertinent to answer this question: How much would it cost to make the individual just as well off—put him on the same indifference curve—with freedom of choice, as he was made by the compulsory expenditure technique accompanied by the income increase or price reduction? In terms of the chart, how much would it cost to put the individual on I_2 , which he is on at point B, with freedom of choice? By means of a price reduction, it would mean putting the individual at point D on I_2 , and would cost, moving from point A and using the original exchange ratio as in the preceding analysis, 7 pounds of non-food ($2\frac{1}{2}$ pounds of non-food plus 3 quarts of food at $1\frac{1}{2}$ pounds per quart). By means of an income increase, it would require putting the individual at point G on I_2 , and would cost, on the same basis, $7\frac{1}{2}$ pounds of non-food ($4\frac{1}{2}$ pounds of non-food plus 2 quarts of food at $1\frac{1}{2}$ pounds per quart). Whether the price-decrease or the income-increase method is cheaper depends on the shape of the indifference curve: no *a priori* conclusion can be drawn.

However, an income increase and a food price reduction yielding equivalent satisfaction will always, with indifference curves convex to the origin, result in more food being taken in the case of the price reduction than in the case of the income increase. This may be observed graphically in the chart by reference to AF, the "price-change consumption curve," and AC, the "income-change consumption curve." AF describes the locus of points of tangency between the indifference curves and the exchange-ratio lines RR_1 , RR_2 , etc., as they fan out from R as a pivot to show lower food prices. AC describes the locus of points of tangency between the indifference curves and the exchange-ratio lines RR_1 , QQ_1 , etc., as they shift upward and parallel to RR_1 to show increase in income. (The exchange-ratio lines determining points G, K and L are not shown.) The extent of the divergence between the price-change consumption curve and the income-change consumption

curve depends on the slopes of the indifference curves, *i.e.*, the taste pattern of the individual. Convexity of the indifference curves to the origin precludes coincidence of the two consumption curves.

III

The Food Stamp Plan corresponded, in terms of the present analysis, to the case of an increase in income accompanied by restrictions on freedom of disposal of income. In terms of the chart, the plan provided for a parallel shift in the exchange-ratio line from RR_1 to QQ_1 , representing an increase in income, and required, in principle, that the division of expenditures between food and non-food represented by point B on QQ_1 be adhered to. Funds for raising food expenditures 50 per cent were made available to the participants free of charge: in the chart food purchases were to increase from point A (20 quarts) to point B (30 quarts) per period. The income with which the participant purchased the 10 quarts was identified (marked) as expendable for food only. (The gratuity was nominally expendable for only a certain list of food items, but in fact the list was usually sufficiently broad or compliance sufficiently lax to make the distinction between this "marked money" and the money normally spent on food operationally meaningless for the participant.) With a view to ensuring that the person not divert to the purchase of non-food any of his income normally spent on food, such income had to be identified as usable or expendable for food only. This requirement was known as the "freezing requirement" under the Food Stamp Plan. Any increase in non-food expenditures accompanying the plan was known as "substitution." To the extent that this diversion occurred, the special purpose money mechanism and/or compliance with it were faulty. Graphically, substitution meant the sliding of the "outlay-point" up QQ_1 from point B toward point C. If the freezing requirement were entirely inoperative in practice and if there were no change in the participant's taste pattern, the participant would settle at point C, his maximum satisfaction point under the given conditions. If he did so, the 15-pound or 10-quart subsidy would evoke only a $3\frac{1}{2}$ quart increase in food purchases, so that the plan would be only 35 per cent effective, and substitution would amount to $6\frac{1}{2}$ quarts of food or 65 per cent.¹

There is considerable qualitative evidence that the Stamp Plan brought about changes in the taste pattern of individuals in favor of food. In terms of indifference-curve analysis these changes would mean

¹ Actually, substitution was considerably lower, in the neighborhood of 35 per cent. See the present writer's forthcoming book, *Moving Surplus Commodities: The Lesson of the Food Stamp Plan*.

a change in the slope of all indifference curves such that both AC and AF would incline more to the right than they do in the chart.

If the 15-pound subsidy had been given to this participant in the form of a food price reduction, as represented by a swing in the exchange-ratio line from RR_1 to RR_3 , with the requirement that non-food expenditures not be increased, the participant would again have been expected to divide his purchases in the manner shown by point B on RR_3 . But in this case the effective freezing requirement would have pulled him down only from M on I_4 to B on I_2 , instead of from C on I_5 to B on I_2 , as under the mechanism actually employed by the Food Stamp Plan. Had the administrators of the Stamp Plan decided that the price-reduction technique was administratively feasible, compliance would have been psychologically easier than under the income-increase system. It is interesting to note that the price-reduction approach was actually considered when the Stamp Plan was being planned in 1938, but that it was rejected as being more difficult to administer than the income-increase system, employing a special purpose money known as food stamps. However, the technical administrative problems may not be insuperable.

Had the price-reduction approach been employed without a freezing requirement, *i.e.*, without any restriction on the participant's distribution of his income between food and non-food, substitution would have been 40 per cent and effectiveness 60 per cent, as calculated in moving from A on I_1 to M on I_4 in the illustration represented by the chart. Now it so happened that for a number of reasons, some avoidable and some not, substitution under the Stamp Plan was, in various places, as much as 40 per cent, although generally it was about 35 per cent. Hence, with taste patterns similar to that shown in the chart and with a satisfactory administrative procedure for giving participants lower food prices at retail, approximately the same effectiveness could have been obtained without the use of the rather complicated freezing requirement and without any special purpose money. Our participant's satisfaction could thus have been raised from I_1 to I_4 and his food consumption raised 30 per cent (60 per cent of the cost) by a price reduction costing 15 pounds of non-food without the freezing requirement. It should not be assumed hastily that participant taste patterns are correctly reflected in the chart.

How much would it have cost to put the participant on I_2 without restriction of his freedom of choice? (Point B on I_2 is where the Stamp Plan intended to put him, but I_3 or I_4 is the indifference curve to which he probably maneuvered himself by various types of legitimate and illegitimate evasions.) Using the income-increase method it would have

taken $7\frac{1}{2}$ pounds of non-food to move him from A to G, while using the price-reduction method it would have taken 7 pounds of non-food to move him from A to D. (Note again that one method is not necessarily cheaper than the other.)

Let us now state briefly how much non-food it would cost, under each of the four alternatives, to evoke a certain (say, 6 quart) increase in food consumption by this individual: (1) price decrease from $1\frac{1}{2}$ to $12/13$ pounds of non-food per quart of food with freedom of choice, 15 pounds of non-food (point M on the chart); (2) price decrease from $1\frac{1}{2}$ to 1 pound per quart without freedom of choice as defined, 9 pounds (coördinate values: $x=26$, $y=30$); (3) income increase with freedom of choice, 32 pounds (coördinate values: $x=26$, $y=52$, —52 not on chart); (4) income increase without freedom of choice, 9 pounds (coördinate values: $x=26$, $y=30$). Assuming compliance with the restrictions, alternatives (2) and (4) are considerably cheaper than (1) and (3). As pointed out above, purchase of the 6 quarts of food is more likely under (2) than under (4) because the pressure for non-compliance is not as great. The following table gives the ranking of the four alternatives from the points of view of increasing the satisfaction of the individual and moving additional food (the latter ranking is the same whether expressed as the varying results of a given cost or as the varying costs of a given result):

Alternative	Increased satisfaction to individual	Increased consumption of food
	RANKINGS	
(1)	2	3
(2)	3	1
(3)	1	4
(4)	4	2

It would appear to be a discovery of considerable practical significance that a subsidy system involving a price reduction and a freezing requirement calls for less distortion of the participant's expenditure pattern than a subsidy system involving an equal-cost income increase with a freezing requirement, though they would yield the same increase in food consumption when functioning properly. The quantitative difference depends on the slope of the indifference curves. It is believed that the illustration used here has no "special-case" implications.

IV

It is interesting to consider the relation of Hicks's concepts of "income-effect" and "substitution-effect" in connection with the present

analysis. A reduction of the price of food represented graphically by the change from RR_1 to RR_4 would, with consumer freedom of choice, find the participant in equilibrium at point M on I_4 and RR_4 . By Hicks's method, this result is analyzable into two effects, the income-effect, represented by the movement from A out along the income-change consumption curve AC to the point where it cuts I_4 at L, and the substitution-effect, represented by the movement down I_4 from L to M. The income-effect of a price reduction is the increase in income which would be necessary to put the person on the same indifference curve on which the price reduction places him. In this example it is 9 pounds of non-food and $3\frac{1}{4}$ quarts of food (from A to L), convertible into $13\frac{7}{8}$ pounds of non-food or $9\frac{1}{4}$ quarts of food at the original exchange ratio. The substitution-effect is measured in the same way as any movement along an indifference curve: hence the movement from L to M constitutes a substitution of $2\frac{3}{4}$ quarts of food for 3 pounds of non-food.

A fully effective subsidy system involving a food price reduction and requiring consumption at point B by means of a "freeze" reduces the income-effect by LG (from AL to AG) and forces a substitution-effect of GB on I_2 (*i.e.*, of 8 quarts of food for 4 pounds of non-food), which is larger than the substitution-effect of LM on I_4 (*i.e.*, of $2\frac{3}{4}$ quarts of food for 3 pounds of non-food) evoked without a freeze.

An income increase represented by the change from RR_1 to QQ_1 would find the individual, if unhampered in his choice, in equilibrium at C on I_5 and QQ_1 . In this case there is no substitution-effect, since an income change is not accompanied by a substitution-effect when the person has freedom of choice. However, if this increase in income is accompanied by a freezing requirement of the type required under the Stamp Plan, expenditures would, under the perfectly functioning plan, be divided between food and non-food as represented by point B. This fully effective freezing requirement would reduce the income-effect by CG (from AC to AG), and would produce a substitution-effect again represented by GB on I_2 .

Thus the fully effective Food Stamp Plan reduces the income-effect more than does the alternative price-reduction system with freezing requirement (CG as compared with LG). The substitution-effect is the same in both cases. This is another way of formulating the conclusion reached above that the psychological basis for conformance is stronger with the price-reduction technique than with the income-increase technique.

The relation between Hicks's substitution-effect and the concept of substitution as used in Section III above should be noted. If food purchases only are considered, Hicks's substitution-effect resulting from

the reduction in the price of food is the increase in food purchases over and above the increase in food purchases represented by the income-effect. Graphically, it is the difference between the abscissas of L and M in the case of freedom of choice and between the abscissas of G and B in the case of restriction on freedom. The (food) substitution-effect in the case of the income increase technique as employed by the Food Stamp Plan is also the difference between the abscissas of L and M.

Substitution in the sense of Section III is simply the increase in non-food expenditures resulting from the price reduction or income increase. Graphically, it is the ordinal difference between A and, say, M in the price-reduction case, and the ordinal difference between A and, say, C in the income-increase case. Substitution is zero at B in either case when the restriction on freedom is imposed. The relation between the two concepts may be summed up as follows: the greater the substitution-effect the less the substitution of non-food for food.

COMMUNICATIONS

The Repurchase Provisions of the Proposed International Monetary Fund

Some thoughtful critics of the final text of the Articles of Agreement of the International Monetary Fund as submitted to their governments by the Delegates at the Bretton Woods Conference have expressed anxiety concerning what appears to them to be an almost inevitable "seepage" of strong currencies from the Fund. They are fearful that the instrument is technically defective and that in practice there is danger of a loss of strong currencies, especially dollars, even when the strong currency countries have a long-run equilibrium in their international balances of payment. This "seepage" they feel would be quite apart from, and additional to, the glutting of the Fund with weak currencies which would follow prolonged failure to deal with the underlying economic causes of balance of payments disequilibrium.¹

These anxieties appear to be due partly to a misunderstanding of how the day-to-day operations of the Fund would be conducted, and partly to the difficulties of interpreting the language of the repurchase provisions as it appears in Article V, Section 7 of the Articles of Agreement.²

This language is extremely condensed, and requires a certain amount of clarification even for the hardened reader of technical documents. This note is intended solely to provide this clarification, first by a brief discussion of the principles embodied in the repurchase clauses, and second by giving a series of arithmetical examples designed to show whether or not, under reasonable assumption concerning long-run balance of payments equilibrium, they are adequate to prevent a "seepage" of strong currencies from the Fund. It does not go beyond this limited field, except to point out that the repurchase provisions are not the only provision made in the Agreement for replenishing the holdings of strong currencies of the Fund.

I. The Principles Embodied in the Repurchase Clauses

The repurchase provisions as they appear in the Articles of Agreement are a compromise between the original American position as exemplified in the

¹ See especially John H. Williams, "International Monetary Plans—After Bretton Woods," *Foreign Affairs*, Vol. 23, No. 1 (Oct., 1944), pp. 38-56.

² Article V, Section 7 (b) and (c) reads as follows:

(b) At the end of each financial year of the Fund, a member shall repurchase from the Fund with gold or convertible currencies, as determined in accordance with Schedule B, part of the Fund's holdings of its currency under the following conditions:

(i) Each member shall use in repurchases of its own currency from the Fund an amount of its monetary reserves equal in value to one-half of any increase

White Plan of July 10, 1943, which provided for a gradual transformation of the Fund into a "gold Fund,"⁸ and the great reluctance of other countries to accept the principle of international pooling of any part of their gold reserves. They cannot, of course, prevent the Fund from being depleted of dollars if the balances of payments of the members are running strongly and persistently in favor of the United States, for such a permanent situation would destroy any Fund and any stabilization program. They do, however, preserve the principle of "pooling" international reserves by preventing "seepage" of strong currencies from the Fund except in very minor degree (as shown below) as long as the Fund does successfully operate as a *stabilization fund*. As long as members maintain long-run equilibrium in their international accounts, even though short-run swings may be wide, they *prevent* any substantial dissipation of the Fund's holdings of strong currencies through the "mechanical" operation of the Fund.

This conclusion is fully supported by a close analysis of the text of Article V, Section 7(b). This Article gives effect to three basic principles:

1. That countries with ample reserves shall not dissipate the Fund's stock of gold and strong currencies;
2. That countries with increasing reserves shall replenish the Fund's stock of gold and strong currencies;
3. That countries carrying on their foreign trade in key currencies shall not accumulate them in exchange for their local currencies paid to the Fund.

These three principles are subject, in the provisions as drawn, to certain limitations.

1. A country selling its own currency to the Fund for foreign exchange

that has occurred during the year in the Fund's holdings of its currency plus one-half of any increase, or minus one-half of any decrease, that has occurred during the year in the member's monetary reserves. This rule shall not apply when a member's monetary reserves have decreased during the year by more than the fund's holdings of its currency have increased.

(ii) If after the repurchase described in (i) above (if required) has been made, a member's holdings of another member's currency (or of gold acquired from that member) are found to have increased by reason of transactions in terms of that currency with other members or persons in their territories, the member whose holdings of such currency (or gold) have thus increased shall use the increase to repurchase its own currency from the Fund.

(c) None of the adjustments described in (b) above shall be carried to a point at which

- (i) the member's monetary reserves are below its quota, or
- (ii) the Fund's holdings of its currency are below 75 per cent of its quota, or
- (iii) the Fund's holdings of any currency required to be used are above 75 per cent of the quota of the member concerned.

⁸This plan provided (1) for the payment of one-half of the foreign exchange purchased from the Fund in gold until a member's reserve was reduced to 50 per cent of its quota and (2) for the offer by members to the Fund of one-half of all increases in their reserves beyond their holdings at the time the Fund began operations as long as their reserves were larger than 25 per cent of their quotas. This plan did not contain any limitation that repurchases must stop when the Fund's holdings of member currencies declined to 75 per cent of their quotas.

must repurchase at the end of each year one-half of such currency with its own monetary reserves, *provided that this operation does not reduce its monetary reserves below its quota*.⁴ If, however, its monetary reserves, though still above its quota, have decreased during the year, it is relieved of this obligation to the extent of one-half the decrease.

2. A country increasing its monetary reserves (for whatever reason) must use one-half of the increase to repurchase its own currency held by the Fund, *provided that this operation does not reduce the Fund's holdings of its currency below 75 per cent of its quota*. If, however, its monetary reserves, though increasing during the year, are still below its quota, it is relieved from this obligation.⁵
3. A country which carries out its international transactions in terms of a third (key) country's currency must make a twofold settlement with the Fund at the end of each year.

- (a) It must make the repurchase required of all countries which, having reserves in excess of their quotas, still buy foreign exchange from the Fund, or which increase their monetary reserves during the year (1 and 2 above), if it is in either of these positions.

- (b) On the basis of the reserve position resulting after these purchases are made it becomes subject to a special adjustment which is required of all countries carrying out their transactions in key currencies.

If it is found that any member country has, by reason of having carried out its international transaction in the currency of another member (a key country) increased its holdings of that member's currency or acquired gold from that member, then it must use that increase and that gold to repurchase its own currency from the Fund, *provided that this operation does not*:

- i. reduce its own reserves below its quota;
- ii. reduce the Fund's holding of its own currency below 75 per cent of its quota;

⁴ Provided also that such repurchases will not reduce the Fund's holdings of its currency below 75 per cent of its quota. But this is not, in most cases, the *operative* limitation, for the Fund has been increasing its holdings of the country's currency during the year. In a few cases, however, it might be a real limitation, e.g., if a country had made all of its original contribution in gold and had previously exercised all its rights of repurchase under Article V, Section 7(a), and had bought during the year less than 75 per cent of its quota, no repurchase would be needed, whatever its monetary reserve. This appears unlikely, though the United States might be a case in point if there were at some future time a general pressure on the dollar.

⁵ This is not, however, in most cases, the *operative* limitation restricting repurchases by countries whose reserves are *increasing*. The cases in which the use of one-half of an annual increase in monetary reserves would bring a country's reserves below its quota are not now numerous or important. Since membership in the Fund imposes no check on the rate of accumulation of monetary reserves by such countries, they may be expected to build these up rather rapidly if economic recovery is widespread after the war. This will be helped by the annual addition to the world's gold stock from new production in which they may be expected to share. Therefore, this limitation on the operation of the repurchase clause may be expected to become progressively less important.

- iii. increase the Fund's holdings of the "key" currency above 75 per cent of the quota of the "key" country.

In no event is any country required to make repurchases if such repurchases will reduce its monetary reserves below its quota. Subject to this general limitation, these somewhat complicated provisions are intended to produce a quite simple result, namely, to restore the Fund to its "normal position," *i.e.*, the position in which it holds in gold 25 per cent and in local currency 75 per cent of the quota of each member.

The "normal" position of the Fund is not its "original" position, because countries originally subscribe in gold 25 per cent of their quotas or 10 per cent of their net official holdings of gold or United States dollars *whichever is smaller*, and therefore, in the operation of the repurchase clause, a factor which tends to strengthen the Fund's holdings of gold.

The illustrations given below show the conditions under which the repurchase clauses will tend to move the Fund back to its "normal" position when this has been departed from as a result of transactions with members whose monetary reserves are above their quotas, and also to show the modifications which are introduced into the situation as a result of transactions with members whose monetary reserves are less than their quotas.

II. *Illustrations of the Operation of the Repurchase Provisions^a*

These illustrations are worked out to show the operations of the repurchase clauses over a period during which a member country maintains long-run equilibrium in its international payments, but within which there are periods of deficit and of surplus. For convenience these periods are treated as "years" though under the conception of the Fund they may be longer since they represent the cyclical swings in trade.

It is assumed that at no time during the two "years" has the United States any occasion to make repurchase of dollars from the Fund.

Great Britain is used in the illustrations to represent countries with monetary reserves above their quotas.

Czechoslovakia is used to represent countries with monetary reserves below their quotas.

The Central Bank of a country approaching the Fund with a request to buy foreign exchange with its own currency must represent that the currency is presently *needed* to make payments in that currency which are consistent with the purposes of the Fund. At any time (Article V, Sec. 5) the Fund may question whether this representation is correct. This is a sanction which, with a strong management, will oblige members to make reasonable use of their independent reserves. It makes the third of the three cases given below for countries with strong independent reserves *the most probable case*.

Countries with Reserves which Exceed Their Quotas at All Times

Case 1—Great Britain has a deficit on current account of \$200 million in the first "year" which it covers by selling sterling to the Fund, and in the second

^aThe special repurchases required of countries carrying out their international trade in terms of a third (key) currency are not included in these examples.

"year" has a surplus on current account of \$200 million, or is otherwise able to build up its monetary reserves by that amount.

The following steps take place:

Case 1 Transactions	Changes in		
	UK Monetary Reserve	Fund's Holdings of Sterling	Fund's Holdings of Gold (Dollars)
	(In millions of dollars)		
<i>First Year:</i>			
1. Bank of England buys from the Fund <i>during the year</i> \$200 million with sterling	No change	+200	-200
2. <i>At the end of the year</i> the Bank of England repurchases from the Fund			
(a) one-half of the increase in its reserves (which is zero)* plus			
(b) one-half of the increase in the Fund's holdings of sterling during the year (which is 100) making a net repurchase of 100	-100	-100	+100
<i>Second Year:</i>			
1. UK monetary reserves are built up (from whatever source) during the year by \$200 millions	+200	No change	No change
2. Bank of England has no dealings with Fund during the year	No change	No change	No change
3. <i>At the end of the year</i> the Bank of England repurchases from the Fund			
(a) one-half of the increase in its reserves during the year plus	-100	-100	+100
(b) one-half of the increase in the Fund's holdings of sterling during the year (which is zero)	No change	No change	No change
NET RESULT FOR TWO "YEARS"*	No change	No change	No change

* Should Great Britain suffer a loss of \$200 million in monetary reserves during the first "year," not related in any way to its dealings with the Fund, it would not have to make any repurchase during the first "year." *At the end of that year* its obligation would be to repurchase:

(a) one-half of the increase in the Fund's holdings of sterling during the year (\$100 million)
minus

(b) one-half of the decrease in its monetary reserves during the year or \$100 million, making no net repurchase required.

Therefore, unless this loss in monetary reserves were made good in the second "year"—that is, unless Great Britain's monetary reserves increased \$400 million in the second "year," instead of \$200 million as in the illustration—there would be a seepage of dollars from the Fund over the whole period. It should be noted, however, that other member countries may gain the "monetary reserves" which England uses, and this will affect *their* repurchases. The loss to the Fund may not be, and if all countries were members, *could not be* a net loss.

Case 2—Great Britain has a deficit on current account of \$200 million in the first “year” which it covers to the extent of \$100 million by drawing on the Fund and to the extent of \$100 million by using its own reserve, and in the second year has a surplus on current account of \$200 million, or is otherwise able to replenish its reserves by that amount.

The following steps take place:

Case 2 Transactions	Changes in		
	UK Monetary Reserve	Fund's Holdings of Sterling	Fund's Holdings of Gold (Dollars)
	(In millions of dollars)		
<i>First Year:</i>			
1. Bank of England buys from the Fund during the year \$100 million with sterling	No change	+100	—100
2. UK Monetary reserves are decreased during the year by \$100 million	—100	No change	No change
3. <i>At the end of the year</i> the Bank of England repurchases from the Fund			
(a) one-half of the increase in the Fund's holdings of sterling during the year (\$50 millions) minus			
(b) one-half the decrease in the UK monetary reserves during the year (\$50 millions)			
Making a net repurchase of zero	No change	No change	No change
<i>Second Year:</i>			
1. UK monetary reserves are built up (from whatever source) by \$200 million <i>during the year</i>	+200	No change	No change
2. Bank of England has no dealings with the Fund <i>during the year</i>	No change	No change	No change
3. <i>At the end of the year</i> the Bank of England repurchases from the Fund			
(a) one-half of the increase in the UK monetary reserve (\$100 million) plus			
(b) one-half of the increase of the Fund's holdings of sterling (zero)			
Making a net repurchase of \$100 million	—100	—100	+100
NET CHANGE FOR THE TWO “YEARS”	No change	No change	No change

Case 3—Great Britain has a deficit on current account of \$200 million in the first “year” which it covers completely with its independent reserves, and in the second “year” has a surplus on current account of \$200 million or is otherwise able to replenish its reserves by that amount.

The following steps take place:

Case 3 Transactions	Changes in		
	UK Monetary Reserve	Fund's Holdings of Sterling	Fund's Holdings of Gold (Dollars)
	(In millions of dollars)		
<i>First Year:</i>			
1. Bank of England buys no dollars from the Fund <i>during the year</i>	No change	No change	No change
2. UK monetary reserves are decreased <i>during the year</i> by \$200 million	-200	No change	No change
3. <i>At the end of the year</i> the Bank of England repurchases			
(a) one-half the increase in the Fund's holdings of sterling (zero)			
minus			
(b) one-half the decrease in the monetary reserves of the UK (which is \$100 million)			
Making no net repurchase	No change	No change	No change
<i>Second Year:</i>			
1. UK monetary reserves are built up (from whatever source) by \$200 million	+200	No change	No change
2. Bank of England has no dealings with the Fund <i>during the year</i>	No change	No change	No change
3. <i>At the end of the year</i> the Bank of England repurchases from the Fund			
(a) one-half of the increase in the UK monetary reserve (\$100 million) ^a			
plus			
(b) one-half of the increase of the Fund's holdings of sterling during the year (which is zero)			
Making a net repurchase of \$100 million ^a	-100	-100	+100 ^b
NET CHANGE FOR THE TWO "YEARS" ^a	-100	-100	+100

^a This repurchase does not have to be made *unless* the Fund's holdings of sterling at the end of the second year exceed 75 per cent of the quota of Great Britain by \$100 million. That means simply that the repurchases are not needed to restore the Fund's holdings of the United Kingdom's contribution to its normal composition; 25 per cent gold and 75 per cent in sterling.

^b If this repurchase is due to the fact that Great Britain has increased its reserves from new gold production or from non-members, it will not be offset by losses of gold by the Fund to other members. Part of the secular increase in gold production will have been channeled into the Fund.

Conclusions to be drawn from Cases 1 to 3:

If a member country keeps its monetary reserves at all times above its quota the repurchase provisions will operate to prevent any seepage of gold (dollars) from the Fund as a result of financing temporary trade deficits from that country *provided*

1. that temporary deficits on current account are offset by subsequent

surpluses on current account or by any form of import surplus (e.g., capital imports) which yields an equivalent increase in monetary reserves;

2. that losses in the country's monetary reserves which occur during the period when the Fund is financing the country and which
 - (a) prevent the country being financed from making any repurchases during the deficit "year," and
 - (b) go into the hands of non-members and therefore do not increase the repurchases of other member countries

are made good during the subsequent surplus "year."

Failure to meet the second condition would be a cause of seepage of gold (dollars) from the Fund if non-members were gaining reserves from members being financed by the Fund, or if members were gaining reserves in this way who were not required to make repurchases because the Fund already held less than 75 per cent of their quotas in their own currency. The more inclusive the membership in the Fund the less important would be this form of seepage. Failure to meet the second condition would also be an indication of failure on the part of countries financed by the Fund to maintain general over-all long-range equilibrium in their balances of payments. If such long-range equilibrium is maintained there will be no seepage due to "mechanical" defects in the Fund, except under the rather strained hypothesis that all the losses of reserves during the deficit "year" are to non-members and all the gains of reserves during the surplus "year" are from members.

Countries with Reserves Equal to or Less Than Their Quotas

Case 4—Czechoslovakia has monetary reserves equal to its quota. In the first "year" it has a deficit in current account all of which is financed through the Fund. In the second "year" Czechoslovakia has a surplus of \$200 million on current account or is otherwise able to increase its monetary reserves by this amount.

Then the steps shown in the example on page 119 will take place.

Conclusions to be drawn from Case 4:

As long as a member's monetary reserves are below its quota there can be no repurchase under the provisions as drawn. Even if the two conditions of long-run equilibrium are met, there will be a seepage of dollars from the Fund. The size of this seepage is reduced as soon as the member's monetary reserves are built up above its quota. It must be noted that the creation of a "surplus" in the balance of payments on current account is not the only way of increasing monetary reserves. Gold may be bought with capital assets or acquired through stabilization loans, and dollars may be borrowed.

In practice "monetary reserves" will be above quotas. There is about \$11 billion of monetary gold outside the United States, as compared to aggregate quotas of countries other than the United States of \$8.8 billion minus \$2.75 billion—or about \$6 billion. To this gold we must add the dollars held by other countries which under the definition of "monetary reserves" are included in the calculation. (See the very carefully drawn and hard-fought "explanation of terms" clause in the Articles of Agreement.)

Case 4 Transactions	Changes in		
	Monetary Reserves of Czechoslovakia	Holdings of Fund in Crowns	Holdings of Fund in Gold (Dollars)
	(In millions of dollars)		
<i>First Year:</i>			
1. Czech National Bank buys from the Fund <i>during the year</i> \$200 million	No change	+200	-200
2. <i>At the end of the year</i> there are no repurchases because the Czechoslovak monetary reserves cannot be reduced below the quota by such repurchases	No change	No change	No change
<i>Second Year:</i>			
1. Czechoslovak monetary reserves are built up during the year (from whatever source) by \$200 million	+200	No change	No change
2. Czech National Bank has no dealings with the <i>Fund during the year</i>	No change	No change	No change
3. At the end of the year the Czech National Bank repurchases from the Fund			
(a) one-half of the increase in its reserves during the year (\$100 million) ^a			
plus			
(b) one-half of the increase in the Fund's holding of crowns during the year (zero dollars)			
Making a net repurchase of \$100 million	-100	-100	+100
NET RESULT FOR TWO "YEARS" ^a	+100	+100	-100

^a If Czechoslovakia had monetary reserves at the beginning of the first "year" which were \$200 millions or more less than its quota, this repurchase would not have to be made, and the "seepage" from the Fund for the two years would be \$200 millions instead of \$100 millions.

III. General Conclusions

From these illustrations it can be concluded that, given long-period over-all equilibrium in the international accounts of countries with reserves in excess of their quotas, there will be no seepage, but that there may be seepage

1. if such countries are losing monetary reserves to non-members at the same time that they are borrowing from the Fund and this loss is not subsequently made up;
2. if countries which have monetary reserves continually less than their quotas buy foreign exchange from the Fund during the deficit phases of their foreign trade cycle.

These causes of seepage are minor, and it should be pointed out that the second exemplifies a pooling of reserves, under which the strong help the weak until the weak can build up their monetary position.

These seepages are offset by

1. The "equal advantage" clause (Article V, Sec. 6) which encourages members wishing to sell gold to sell it to the Fund;
2. The special provision for strong reserve countries to make capital exports through the Fund (Article VI, Sec. 2);

3. The effect on the operation of the repurchase clauses of a secular increase in the total world gold supply;
4. The obligation of members trading in key currencies to give up part of their accumulation of such currencies arising out of trade with third countries if they have previously increased the Fund's holdings of their own currency to more than 75 per cent of their own quotas;
5. The obligation of scarce currency countries to accept gold from the Fund;
6. The privilege of members at any time to purchase their currencies from the Fund for gold, if in excess of their quotas;
7. The payment of all charges in gold;
8. The operation of the repurchase clauses in bringing the original gold contributions of members which were less than 25 per cent of quotas up to that amount;
9. The probable general wish to see the Fund strengthened once it proves its worth.

The anxieties, therefore, of those who fear that the instrument drawn up at Bretton Woods is so technically defective that the proposed International Monetary Fund will continually lose strong currencies even when members have kept their over-all international accounts in order are illusory.

WM. ADAMS BROWN, JR.

Washington, D.C.

Seventeen Post-War Plans—The Pabst Post-War Employment Awards

I. The Pabst Post-war Employment Awards

The Pabst Post-war Employment contest, which closed on February 7, 1944, offered \$50,000 in prizes for "the best and most practical solutions to the broad problems of post-war employment in the United States." Serious contributions by professional students of the subject were solicited. The judges were Clarence Dykstra, Wesley C. Mitchell, Beardsley Ruml, and A. F. Whitney, and they were assisted by the members of the Faculty of the Economics Department of Columbia University. The 35,767 entries submitted is said to be the largest number ever received in any popular contest, and to exceed by more than 13,000 the number of entries in the famous Bok Peace Plan Contest after the last war. The seventeen winning essays have now been published by the Pabst Company. All but one or two of the winning authors are probably to be regarded as professional economists, nine are Ph.D's, and twelve were at the time in government service in one capacity or another. The average age of the group is under 40 years.

The collection is well worth reading, not only for the intrinsic merit of a number of the papers, but even more for the insight it will provide into the applied economic thinking of a group of able and at least potentially influential young American economists, and also (let us not forget) of a group of distinguished and already influential judges. What especially interests this writer is the striking agreement in fundamental outlook characterizing a large

majority of the papers. This agreement takes the form of an implicit or explicit interpretation of the employment problem as primarily the problem of finding adequate offsets to savings—either by decreasing total savings or by increasing offsets—at the levels of employment desired. Otherwise stated, it is the problem of maintaining a high enough total of aggregate business, individual, and government expenditures to buy, without disruptive changes in the general level of prices, the entire output of goods and services that would be produced by the reasonably full utilization of our labor force.

II. *The Main Types of Policy Advocated*

With the problem conceived in this fashion, emphasis is given in most papers to one or more of the four following types of policy: (1) Offsets to saving, of the traditional private-investment types, may be expanded by a variety of measures designed to stimulate enterprise and private investment. Here attention is directed initially to raising *business* expenditures. (2) The volume of savings derived directly or indirectly from monopoly profits may be reduced, and barriers to new investment removed, by antitrust and monopoly-control programs. Such programs may increase total expenditures of both individuals and business or may result in price reductions which increase the volume of employment associated with a given total of dollar expenditures. (3) Government expenditures for goods and services may be enhanced by expanded public-investment programs, going beyond what would be thought justified under favorable employment conditions in private enterprise. Government thereby provides the necessary employment fill-in directly, and supplies the offsets to saving which private investment fails to provide in adequate amounts. (4) Consumer expenditures may be raised in the long run by basic tax, social-security, wage, and agricultural policies, and in the short run by special types of tax reductions and transfer payments. Real saving is thereby kept down to the level of available investments of high productivity and of acceptable type.

While these policies do offer genuine alternatives, at least of emphasis, they need not be regarded as other than complementary. In fact, as we shall see, most of the papers under review give support to measures falling under more than one category. In pursuing this analysis in further detail it will be of interest to cite the particular authors who support the various types of proposal.¹ In the interest of brevity we shall refer to them by number, in accordance with the order in which their papers are printed, as follows: 1. Herbert

¹ In this rough-and-ready classification of proposals the writer may not in every case have interpreted a proposal exactly as its author intended, and may also have erroneously omitted some authors from the list of those who support a given type of proposal. For such errors of commission or omission, if they exist, the writer begs indulgence. The proposals are often stated in very general language and leave a great deal to the interpretation of the reader. Nuances of thought are necessarily obscured in making a simple classification such as suits our present purpose. No attempt has been made to list specific proposals separately, but only to deal with major classes and to list each writer as a supporter of the classes under which his specific proposals fall. A few proposals that were not readily classifiable and that were not regarded as of major importance have been ignored, and a few broad classes that seemed of less strategic significance have been treated in summary fashion.

Stein (winner of the First Award of \$25,000), 2. Leon H. Keyserling (winner of the Second Award of \$10,000), 3. Wroe Alderson, 4. Rev. Dr. John F. Cronin, 5. Grover W. Ensley, 6. Mordecai Ezekiel, 7. Joseph M. Gillman, 8. Leo Grebler, 9. Everett Hagen, 10. Albert G. Hart, 11. Asher Lans, 12. Ruth P. Mack, 13. Rolf Nugent, 14. John H. G. Pierson, 15. Major Lyle M. Spencer, 16. Dorothy K. and Joseph J. Spengler, 17. Ross Stagner.

III. *The Chief Proposals*

1. Tax revision in some form is the most commonly suggested method for the stimulation of private enterprise and investment. Among the particular proposals the following may be mentioned: (a) Elimination of the excess profits tax (1, 9, 10, 11); (b) Reduction or elimination of the corporate income tax (1, 3, 11, 12); (c) Exemption from business taxes for *distributed* business earnings if dividends are taxed as recipients' income (1, 3, 6, 9, 10, 12); (d) Exemption, or reduced rates, for retained business earnings, or portions of individual incomes, that are promptly reinvested (11, 12, 17); (e) Averaging income over a longer period for tax computation purposes (1, 6, 9, 10, 11); (f) Removal or curtailment of the tax-exemption privilege for future, or even outstanding, issues of all government securities which still utilize this privilege (1, 9, 11); (g) Removal of discrimination against equity financing by taxing corporate income used to make interest payments on bonds (11); (h) Imposition of a special tax on idle money, or on unused business earnings (5, 7, 10, 11, 12, 14, 17); (i) Exemptions or preferential tax rates for new or small businesses, or for industries in new fields or in hitherto undeveloped regions (3, 4, 7, 16, 17). Other suggested methods of stimulating private investment are: (a) Guarantees, loans, or subsidies, or government technical or research assistance (2, 6, 7, 9, 10, 11, 15); (b) New public or quasi-public institutions for facilitating the investment of savings either in domestic investments (4, 5, 6, 10, 11, 16) or abroad (7, 11); (c) Underwriting as large an aggregate volume of consumer expenditure as is needed for full employment, thus providing assurance to private enterprise of the stability and adequacy of its markets (14).

2. The proposals dealing with monopoly are of two sorts: (1) those that seek to maintain or restore competition, and (2) those that seek to regulate or otherwise control monopolies, on the implicit or explicit assumption that some industries can not be made workably competitive. (1) In the first category are the following proposals: (a) more vigorous enforcement of the present antitrust laws (1, 4, 6, 9, 10, 11, 14, 17); (b) Restrictions on the size of allowable business combinations (1); (c) Repeal of the Webb-Pomerene act (6); (d) Repeal of the Miller-Tydings act (6, 11); (e) Revision of the patent laws (6, 9, 14); (f) Grade labeling (14); (g) Federal prohibition of state barriers to free trade (3, 6); (h) Tariff reduction to stimulate competition (1); (i) International agreements to prohibit restrictive cartel practices (3, 6); (j) Improved financial facilities for small business to stimulate competition (14). (2) In the second group would probably be included: (a) Encouragement of coöperatives (7, 14, 17); (b) Heavier inheritance taxes as an anti-monopoly device (17); (c) Pressure of government-owned "yardstick" plants

(6, 17); (d) Diffusion of ownership of large government war plants, or distribution of their equipment, to ex-servicemen (17); (e) Tax policies that reward enterprises operating on a low profit margin (17); (f) Reduction of capital structures to prudent investment base, and limitation of profits to a fair return on that base for *all*, not merely monopolistic, business (7); (g) Indirect control or if necessary direct price regulation, in cases of "imperfect competition," "administered prices," or "monopoly that is here to stay" (9, 10, 14).

3. A policy of compensatory stimulation of construction by federal guarantees or loans to private, quasi-public, or public authorities, or an outright policy of compensatory public investment functioning through accelerated public works programs, when necessary to provide fill-in employment, is accepted by a large majority of the contestants (1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 14, 16, 17).

4. Programs aimed directly at the expansion of consumer expenditures include the following: (a) Removal or reduction of regressive taxes or other taxes adversely affecting consumption (1, 4, 7, 9, 10, 11, 14, 17); (b) Liberalization or broadening of social security benefits, expansion of coverage, or shift to pay-as-you-go basis, with federal contributions from general revenue (1, 2, 5, 7, 9, 10, 11, 14, 17); (c) Raising of wage levels by higher minimum wages (6, 7, 14) or the guaranteed annual wage (7, 17); (d) Imposition of legal limits on corporation salaries, and on individual gross incomes (7); (e) Consumer subsidies in kind (food stamp program, free education and health service, etc.) (11); (f) Tax remissions, or refunds, or cash subsidies to consumers (6, 14).

A few of the papers present or emphasize particular proposals somewhat outside the framework of the programs described above, as, for example: (a) The establishment of new planning mechanisms or agencies (2, 3, 6); (b) Industry planning in terms of international, national or regional markets (3); (c) The earmarking of war savings for specific items of postwar consumption, by an advance payment arrangement (13); (d) Substantial expansion of employment in small business, by loans to ex-servicemen and others (15); (e) The stabilization of the construction industry by federally controlled variations in down-payments, amortization periods, and interest rates, on private construction, and by better coördination and more flexible timing of federal, state, and local public work programs (8); (f) Maintenance, or extension, of existing public controls over money, and over business or consumer credit (1, 4, 5, 10, 11); (g) Establishment of a subsidiary commodity-reserve currency, which would require expansion of government-owned inventories of many basic commodities when price levels declined (and might therefore be considered a type of government investment program) (10).

Certain other classes of proposal need be mentioned only in summary fashion. Several of the papers devote considerable attention to the transitional problems of the demobilization and reconversion period. Several also urge the importance of international economic collaboration, trade barrier reduction, and an expansion of world trade; for the most part, however, they avoid the prevalent misconception that a huge export balance, maintained if necessary

by a subsidized foreign investment program, is indispensable for the attainment of full employment. A number of papers indicate that inflation may be a danger immediately after the war, or occasionally thereafter, and propose suitable measures, but there is apparently an awareness in each case that our long-run and persistent problem is more likely to be of a deflationary character.

IV. *Critical Comment*

In the opinion of this reviewer, the majority of these papers begin with a fundamentally correct understanding of what the employment problem is, and advocate measures that would at least work in the right direction. A large majority of the proposals are extremely sensible, and there are few measures advocated in any of the papers that would not confer real benefits on the American economy. The reviewer thought the analysis of the problem by Mr. Ensley, Dr. Hagen, and Dr. and Mrs. Spengler especially incisive, and found the positive proposals of Drs. Ezekiel, Gillman, Hart, and Pierson of special interest.

Speaking in general terms, the most serious weakness of the seventeen plans is their failure in most instances to come to close enough grips with the problem. This is manifested in part by the frequent indefiniteness of the language, especially where crucial decisions must be made, and by the lack of attention to methods of operation, and ways of overcoming the obvious difficulties of applying the measures proposed. This weakness is partly the result of the severe limitations of space, but the papers would have been more instructive if the contestants had more frequently resisted the temptation to generalize briefly about all major phases of economic policy, and had confined themselves to a more precise description of a few strategic measures, and their intended effects. The failure to come to close enough grips with the problem is also manifested in a certain lack of boldness and originality in most of the proposals; there are whole paragraphs that read as if they might have been taken from a political party's election platform. Finally, it must be said that only one of the seventeen programs undertakes to provide any assurance that full employment would be attained. These weaknesses are manifested in the treatment of each of the four main types of program.

1. The stimulation of enterprise and private investment is undoubtedly the most popular type of program with the contestants, and tax incentives constitute the most popular method. In particular, very heavy emphasis is put on the simple reduction or elimination of taxes on business earnings. No attempt, however, is made to controvert the frequently raised objections that such measures would reward the business that was making monopoly profits as well as the business whose profits were solely the result of efficiency and enterprise, and that tax reductions on monopolistic profits would not assure an expansion of output and employment, but might accentuate the over-saving problem. The critical reader may also want to explore more carefully than the contestants appear to have done just how far it is possible to move in this direction without unduly impairing the revenue needed to support an

expansion of federally aided welfare and developmental programs desirable for their own sake, as well as for the sake of employment. It is no doubt comforting to believe that "the resultant expansion of business activity should shortly restore tax receipts to a satisfactory level,"² but this will have to be demonstrated. The contestants have not always made it clear, moreover, whether they intend tax relief to investors to take precedence over the removal of taxes adversely affecting consumption. It is unfortunate that more attention was not given in these papers to penalty taxes on undistributed uninvested corporate earnings, or on idle funds generally. These proposals are mentioned with varying degrees of approval in several papers but no solutions are offered to the interesting administrative problems they would raise.

2. An unwillingness to tackle the really hard questions is especially apparent in the treatment of antitrust and monopoly-control programs. A majority of the writers are very much in favor of more effective antitrust action, but they do not tell us what changes must be made in the Sherman act to make this possible. Few of the contestants explicitly face the possibility that workable competition may not be attainable in some industries without a loss of efficiency. Those who advocate measures of monopoly control do not explain how they would work, or discuss the type of regulative norm that would be suitable.

3. Almost all of the contestants concede the necessity of a compensatory public-works program, although in some cases they have no more in mind than the concentration of necessary public construction in periods of depression. An objection raised by several contestants to the use of public works on a scale large enough to prevent rather than merely to alleviate depressions, is that it would involve deficit financing. Many readers will feel, however, that deficit financing in one form or another can hardly be avoided if we wish to sustain employment at a time when oversaving tendencies are not yet entirely under control. On the other hand, other difficulties peculiar to using public works as a basic economic stabilizer are insufficiently emphasized in most of the papers. We refer both to the technical difficulties of starting and stopping quickly enough when the volume of public works is on a huge scale, and the politico-economic difficulties of finding enough projects which meet real and pressing needs, but do not compete in the production of goods and services for which there is an existing or potential economic demand.

Since deficits would appear to be made likely by the additional government expenditures or the extensive tax reductions that most of the papers advocate, the reader might expect a more explicit treatment of the public debt than he will actually find. Many of the contestants make the comfortable assumption that occasional deficits will be offset, or more than offset, by surpluses in other years, making it possible to stabilize or reduce the national debt without jeopardizing employment. Those who face the possibility that further debt expansion may be necessary, if over-saving tendencies are not restrained, do not answer the questions which such a possibility raises, for they neither state a conviction that the size of the debt should be of no concern, nor tell us how

² *The Winning Plans in the Pabst Post-War Employment Awards* (a booklet published by the Pabst Brewing Company, Milwaukee, 1944), p. 57.

large a debt may be safely incurred, nor—with two exceptions—advise recourse to unorthodox methods of financing that would reduce the carrying charges.

4. Of the various high-consumption measures advocated, too much is probably expected from the reduction of federal excise taxes, the expansion of social security benefits, and the raising of minimum wage standards. Even if all the federal excises were eliminated (and most of the writers urge the retention of at least one such tax, *e.g.*, on liquor, tobacco, or gasoline), the regressive taxes collected by state and local governments would still be unaffected. The broadening or liberalization of social security benefits would not in itself appear to be nearly as strategic, for secular expansion of consumer expenditure, as the cessation of reserve accumulation and the transition to a method of financing on a progressive basis. These more radical steps find fewer explicit supporters. Nor would higher minimum wage standards, or government-sponsored annual wage plans, substantially add to the real purchasing power of low-income groups generally unless prices were prevented from reflecting increased wage costs—which none of the contestants propose.

The method of raising consumer expenditures by means of consumer subsidies (including here tax remissions or refunds, or other transfers of purchasing power to the individual consumer) is getting an increasing share of attention from economists. Relative to such methods as public works, and basic changes in taxes, wages, or social security benefits, this method has the great advantages of flexibility, speed, and precision. Such subsidies could be quickly and easily increased or decreased, with rapid and predictable effects on consumer expenditure. Interesting suggestions with regard to consumer subsidies are made by two writers.

One (Dr. Ezekiel) proposes that the Treasury be authorized to suspend temporarily, and as often as it believes necessary, part or all of current income tax withholdings and to credit the taxpayer as if the full withholding had been made. An obvious limitation of this particular device for subsidizing consumption is that it would distribute relatively small amounts to the lowest income groups of taxpayers, and nothing at all to a large number of citizens whose incomes are below the taxable limits, although as a group they may support a fairly heavy burden of indirect taxes.

Dr. Ezekiel also proposes that a similar principle be applied to payroll deductions for the purchase of War Bonds (*i.e.*, the War Bond purchase agreements would be modified to allow the government to skip deductions when desired, at the same time crediting the bondholder as if the deduction had been made). Of course some modification would have to be made to permit non-wage-earners to participate, and such a plan also has the serious limitation that it would severely limit the extension of subsidies to the lowest income groups.

The other proposal (Dr. Pierson's) is that, if consumer subsidies are required to raise consumer spending to a predetermined guaranteed level, the practical limits of timing war bond redemption and rebating selected taxes be explored, and that these be supplemented if necessary by "national income security payments" distributed on a share-alike basis to all consumer units. The novelty of the latter device would undoubtedly create difficulties for its

acceptance, but it would provide the most equitable pattern of distribution and would assure that a large share of the funds distributed would be spent on consumption. The latter effect could be even further heightened by restricting consumer subsidies entirely to low-income groups. Such a restriction, however, would be at some sacrifice of formal equity, and would risk obscuring the true purpose of the measure and giving it a philanthropic or egalitarian emphasis that it should not have. Its real function, it must be emphasized, should be to meet a highly specific and technical requirement of a full employment economy, namely, that aggregate consumer expenditure be maintained at a rate sufficient to assure full employment, without any larger dependence on public works than is desired in the light of current opinion regarding the appropriate limits of direct government responsibility for the allocation of resources and the organization of production.

In any final evaluation of the seventeen plans it should not be overlooked that only the one by Dr. Pierson actually undertakes to assure full employment. A number of contestants clearly do not intend or expect their programs to produce full employment.³ Others propose measures that they *hope* will provide full employment. Only Pierson's program is so constructed that, if it were adopted, full employment would necessarily be attained.⁴

The idea of making full employment an initial commitment rather than a mere hope will strike some persons as over-ambitious and as placing too heavy an obligation on the government. Other persons will feel, with the reviewer, that the maintenance of employment is an obligation which the government will have to assume at some point, anyhow, and that the need for actual government intervention, and for compensatory public works, may be greatly reduced by utilizing to the full the stimulative effect which the confident assurance of markets and of jobs would have on producers' and consumers' expenditures.

EMILE BENOIT-SMULLYAN

Washington, D.C.

Marxian Economics in the Soviet Union

The article on "Teaching of Economics in the Soviet Union" reprinted in the September issue of this journal has caused considerable comment.

³ This is suggested in some cases by the avoidance of the term full employment (6, 8, 9, 12, 13, 15), and is indicated in other cases by too heavy a reliance on obviously inadequate measures (4, 8, 13, 15), or on the "let's appoint a committee" type of solution (2, 3). The frankest statement of the defeatist outlook is by Dr. Mack, who writes, "We aim, then, to prolong periods of recovery, to facilitate liquidation when depression does set in, and after necessary readjustments have been made, to speed recovery." (*Op. cit.*, p. 62.)

⁴ This statement may be somewhat puzzling to readers unfamiliar with Pierson's proposal of advance guarantees both of full employment and of a "full employment causing" level of consumer expenditure. For a more detailed account see: John H. G. Pierson, "The Underwriting of Aggregate Consumer Spending as a Pillar of Full Employment Policy," *American Economic Review*, Vol. XXXIV, No. 1 (Mar., 1944), pp. 25-55.

Some of the commentators interpret it as a revision of traditional Marxian theory. Such an interpretation is contained in the article by Raya Dunayevskaya which appeared in this *Review*¹ and in a series of articles in the *New York Times* written by Will Lissner.² The revision is said to consist in the teaching that the theory of value applies also in the socialist economy. Until recently, the official teaching of Soviet economists was that, under socialism, there is no place for the law of value.

This interpretation is quite erroneous. The revision contained in the article on "Teaching of Economics in the Soviet Union" is a revision of the prior teaching of Soviet economists but not a revision of Marxist principles. In fact, it is a return to the original Marxian doctrine which for some time was abandoned by Soviet economists. A careful study of Marx's writings establishes clearly that he held the view that the theory of value applies to a socialist economy. Two quotations from *Das Kapital* will suffice. In chapter 1 of Volume I we read: "Let us now picture to ourselves, by way of a change, a community of free individuals, carrying on their work with the means of production in common, in which the labor-power of all the different individuals is consciously applied as the combined labor-power of the community. . . . The total product of our community is a social product. . . . Labor-time would, in that case, play a double part. Its apportionment in accordance with a definite social plan maintains the proper proportion between the different kinds of work to be done and various wants of the community. On the other hand, it also serves as a measure of the portion of the common labor borne by each individual and of his share in the part of the total product destined for individual consumption."³ An even more explicit statement is found in chapter 49 of Volume III: "After the abolition of the capitalist mode of production . . . the determination of value continues to prevail in such a way that the regulation of the labor-time and the distribution of the social labor among the various groups of production, also the keeping of accounts in connection with this, become more essential than ever."⁴

These quotations show that Marx considered the "law of value" as a guiding principle which will regulate the allocation of resources in the socialist economy. There is, of course, a difference in the mode of operation of the "law of value" under capitalism and under socialism. Under capitalism it asserts itself through the impersonal automatism of the market; in a socialist society it serves as a normative principle for the allocation of resources by the planning authorities. This distinction is also maintained by the authors of "Teaching of Economics in the Soviet Union." They state: "Under capitalism the law of value acts as an elemental law of the market. . . . Under socialism it acts as a law consciously applied by

¹ "A New Revision of Marxian Economics," *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), pp. 531-37.

² April 2, 1944, and July 2 and 3, 1944.

³ Chicago, Kerr ed., 1912, pp. 90-91.

⁴ *Ibid.*, p. 992.

the Soviet state under conditions of planned administration of the national economy."⁵ This corresponds exactly to our distinction between value theory as a tool of analysis of the automatic processes of the market and value theory as a basis for the normative principles of welfare economics.^{5a}

There is no contradiction between the view that the theory of value can serve as a basis for socialist planning and the fact that Marx applies it as a basis for his theory of exploitation. Marx's theory of value is not equivalent to his theory of exploitation.⁶ According to Marx, the law of value holds not only under capitalism, but under "commodity production" (*i.e.*, exchange economy) of any kind. In particular, it applies also to what Marx calls "simple commodity production," *i.e.*, an exchange economy of small independent producers who do not employ wage-labor.⁷ In such an economy there is no exploitation (in the Marxian sense), there is no surplus value, and there are no classes, and yet the "law of value" applies. Marx goes even as far as to maintain that the "law of value" in its pure form applies only under conditions of "simple commodity production," while under capitalism it is disturbed by the equalization of the rate of profit in industries with different organic composition of capital.⁷ In consequence, long-period equilibrium prices correspond under capitalism to the "price of production" (*i.e.*, cost plus average rate of profit) and not to the "value" (*i.e.*, socially necessary labor time) of commodities. On the other hand, Marx expects commodities to be priced "according to their value" in a socialist economy. The private ownership of wage-labor-employed capital is thus regarded as a source of deviations between price and "value."⁸

The authors of "Teaching of Economics in the Soviet Union" have thus

⁵ *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944).

^{5a} Failure to distinguish between these different functions of value theory blurs the argument of the otherwise excellent article of Paul A. Baran, "New Trends in Russian Economic Thinking?" *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec., 1944), pp. 866-69. Mr. Baran interprets value theory as serving exclusively to explain automatic market processes and comes to the conclusion that under socialism "the law of value loses its relevance and importance; its place is taken by the principle of planning." (This sentence he quotes from Paul M. Sweezy.) But, as shown below, planning must be guided by a theory of value in order to economize resources.

⁶ Thus Miss Dunayevskaya is entirely mistaken when she maintains (*cf.* p. 533) that the Marxian law of value entails the concepts of surplus value and exploited labor. It seems that Miss Dunayevskaya fails to distinguish between two basically different Marxian concepts, *i.e.*, commodity production and capitalist production. The latter is only a special case of the first, not equivalent to it.

⁷ *Cf. Capital*, Vol. III, p. 207: the "law of value" is said to hold in an economy where "the laborers themselves are in possession of their respective means of production and exchange their commodities with one another." See also p. 208: "the exchange of commodities at their values, or approximately at their values, requires, therefore, a much lower stage than their exchange at their prices of production, which requires a relatively high development of capitalist production."

⁸ *Capital*, Vol. III, p. 206: "The whole difficulty arises from the fact that commodities are not exchanged simply as commodities but as products of capitals, which claim equal shares of the total amount of surplus-value, if they are of equal magnitude, or shares proportional to their different magnitudes."

reverted to classical Marxian doctrine. It is interesting to follow the causes which have led to the abandonment of this doctrine in the Soviet Union and now again to its restoration. The reasons were political. When the First Five Year Plan was being prepared and the gigantic program of industrialization was launched, many Soviet economists, among them very prominent ones, opposed the program as forcing upon the country an "artificial" rate of economic development incompatible with "economic laws." Professor Groman, for instance, maintained that the Russian economy is subject to a law of "equilibrium," according to which the value of industrial output is approximately one half of the value of agricultural output.⁹ From the point of view of such a theory the "forced" industrialization envisaged in the Five Year Plan must have appeared as a violation of fundamental "economic laws."

In the subsequent discussions on economic planning Soviet economists became divided into two schools: the genetic and the teleological. The genetic school taught that economic planning consists largely in extrapolating trends established by the "laws of economic development." The task of the planner, accordingly, would consist in the study of these trends and laws and in adjusting economic policy to them. The teleological school wanted the plan to set up goals freely chosen by political and social objectives and to subordinate economic decisions to these goals. A. Yugoff, an outstanding student of Soviet economics, characterizes the situation as follows: "It is very significant that most of the old-school Marxian (non-communist) economists—led by such distinguished experts as V. Groman and V. Bazaroff, are firmly convinced of the superiority of the genetic method; whereas the communist economists, and especially the younger ones, favor the teleological method. The former say: 'We are not determinists, but we are of the opinion that in Soviet Russia as well as elsewhere, economic laws impose their will on us. In drafting a plan, our first task must be to pay due heed to reality and laws.' The latter say: 'Nor do we deny the necessity for paying heed to present experience and for studying the dynamics of past events; but the question of the primacy of teleology was settled for us once for all in the days of the November revolution, when we revolted against the "eternal" laws of capitalist evolution.' This formulation of the communist view is given in the words of N. Kovaleffsky."¹⁰ This division of opinion had political implications. The leaders of the geneticist school became tied up with the Right Wing opposition of Bucharin, Rykov, and others. Professors Groman and Bazaroff were arrested. The official doctrine became that the Soviet economy is not subject to economic law. Thus the teleological school was victorious.

There is a certain analogy between this development and the institutionalist reaction against "orthodox" economists' opposition to fundamental social reforms or expansionist monetary policy. The "orthodox" economists opposed them in the name of "economic laws"; consequently, the institutionalists denied the existence of "economic laws." Marxian orthodoxy was just as much opposed to the bold policies of the Soviet government as neo-classical orthodoxy was opposed to the experiments of, say, the New Deal. When New Deal ex-

⁹ See Planovoye Khoziaistvo, 1925.

¹⁰ *Economic Trends in Soviet Russia* (New York, Richard C. Smith, 1929), pp. 300-01.

periments in raising the level of employment proved successful, economists found that, after all, they were not opposed to "economic law." Economic theory was reformulated in order to make it compatible with the success of the reforms. The result was the "Keynesian revolution" and the increasing belief that all this was quite compatible with good old Marshall. When the industrialization policy of the Soviet government was crowned with success, it was found that, after all, it was compatible with "economic law" as taught by good old Marx.

The main reason, however, of returning to Marx's doctrine that the administration of the socialist economy should be guided by the law of value was the necessity of strict cost-accounting and the need of criteria of rational and economical allocation of resources. The authors of "Teaching of Economics in the Soviet Union" are quite explicit about it: "Cost accounting, which is based on the conscious use of the law of value, is an indispensable method for the planned leadership of economy under socialism."¹¹ And further: "A strict observance of cost accounting is the means for the discovery and eradication of every sort of superfluous unproductive expenditure and loss, all kinds of mismanagement. . . ."¹² From the point of view of a theory which denies the applicability of any "laws" to the socialist economy all decisions are purely arbitrary, and neither cost accounting nor principles of rational allocation of resources have any meaning. There is no check upon waste of resources. The adoption of the doctrine that the "law of value" provides a basis for the management of the socialist economy was thus the result of the Soviet economists' need for a system of directives of welfare economics which would serve as a basis for economic planning. Such directives are thought to be contained in Marx's theory of value.

Rational use of resources requires definite principles of allocation, or, in other words, the use of a theory of value. Western economists who, in a theoretical way, have studied the problems of a socialist economy (the present writer among them¹³) have all come to the conclusion that rational and efficient administration of a socialist economy must be based on the principles of a theory of value. In the past, Soviet economists ignored the whole literature on this subject which was published in Germany, in England, and in the United States. The article on "Teaching of Economics in the Soviet Union" converges to the view held by the Western students of socialist economics. The difference is merely one of techniques. While the Western economists operate with a theory of value based upon marginal analysis, the authors of the Russian article want to solve it with the means of the labor theory of value.¹⁴

¹¹ *Ibid.*, pp. 524.

¹² *Ibid.*, pp. 524-25.

¹³ Cf. the present writer's, *On the Economic Theory of Socialism* (Minneapolis, Univ. of Minnesota Press, 1938).

¹⁴ The idea of basing the allocation of resources under socialism upon the labor theory of value was first conceived and worked out by the Austrian Marxist Otto Leichter in his treatise *Die Wirtschaftsrechnung in der sozialistischen Gesellschaft, Marx-Studien*, Vol. V (Vienna, 1923).

The labor theory of value, however, is not adequate to the task.¹⁵ If used as a basis for socialist planning and management, it implies neglect to economize scarce resources other than labor.¹⁶ In consequence, the use of such resources is bound to become wasteful. Two products which require the same amount of labor to produce may require different amounts of natural resources. According to the labor theory of value, they should be priced equally and treated as equivalent in economic planning. But since one uses up more natural resources than the other, they are not equivalent as far as the use-up of these resources goes. Replacing the output of one product by the output of the other will not change the quantity of labor needed, but it will change the drain upon natural resources. Furthermore, two commodities which cost the same amount of labor and natural resources may differ as to the amount of capital instruments needed to produce them. If, as is the rule, the marginal productivity of capital instruments exceeds the marginal productivity of the labor, natural resources and other capital instruments necessary to produce them, the two commodities are not equivalent, either. Shifting production from one commodity to the other will not change the amount of labor and natural resources embodied, but it will affect differently the use-up of resources with different marginal productivity. Thus, products which cost the same amount of labor, *i.e.*, have the same "value" in the Marxian sense, are not necessarily equivalent for the purposes of planning the allocation of resources. In order to avoid wasteful use of natural resources and of capital instruments, appropriate charges have to be included in their prices.

This inadequacy of the labor theory of value for purposes of socialist planning was recognized by the English Marxist, Maurice Dobb. According to Mr. Dobb, a socialist economy has to price products not according to their "value" (in the Marxian sense) but according to their "price of production" (as used in Volume III of *Das Kapital*).¹⁷ Thus, commodities which require a more than average quantity of capital would be priced higher than their "value" while commodities requiring less than the average quantity of capital would be priced lower. Since only relative prices are important, this amounts to pricing capital as a productive resource different from labor. To complete the cost accounting, Mr. Dobb should also have introduced pricing of natural resources.

The position of the authors of "Teaching of Economics in the Soviet

¹⁵ This was justly pointed out by Professor Carl Landauer; "From Marx to Menger," *Am. Econ. Rev.*, Vol. XXXIV, No. 2 (June 1944), pp. 304.

¹⁶ This neglect to take into account scarce resources other than labor, though detrimental to the use of the labor theory of value as a basis for allocation of resources, does not reflect upon the applicability of this theory as a sociological theory of imputation. It is upon this application that the Marxian theory of exploitation is built. Sociological, as distinguished from economic, imputation cannot impute part of the value of the product to non-human agents of production. Any income resulting from the mere ownership of non-human agents may be construed, therefore, as exploitation, *i.e.*, as a tax upon labor. Cf. on this subject the present writer's review of Paul M. Sweezy's *The Theory of Capitalist Development* in *The Journal of Philosophy*, Vol. 40, No. 14 (July 8, 1943), pp. 382-83.

¹⁷ See *Political Economy and Capitalism* (London, Routledge, 1937), pp. 327-30.

Union" is rather vague. In principle they claim that the "law of value" should serve as the basis of establishing equivalences between products. This, however, is qualified by the sentence: "The prices of commodities are set with certain deviations from their values, corresponding to the particular objectives of the Soviet state, and the quantity of commodities of various kinds which can be sold under the existing scale of production and the needs of society." No precise principles are indicated, which govern the deviation of prices from values. According to Marxian theory, the deviation of prices from values in the capitalist economy is a unique function of the organic composition of capital (*i.e.*, the ratio of real capital to labor in the industry) and of the period of turnover of capital. It can be expressed by a mathematical formula, as was done by Bortkiewicz.¹⁸ We are not given a comparable formula to be applied in the socialist economy. Mr. Dobb's solution, which would correspond to the formula applying under capitalism, is explicitly rejected by the authors of the article. "The law of the average rate of profit . . . loses significance under socialism," we read.¹⁹ "The Soviet state can control production and does not have to bow to the law which makes impossible the development of a branch of production which at first must run at a loss or at least not yield a profit."²⁰ The example of the plants in Magnitogorsk and Kuznetsk, which for many years showed losses, is used by the authors to illustrate their point. This is a clear case of discrepancy between social and private marginal product, concepts well known to our welfare economics, but without counterpart in the Marxian theory. In practice the Soviet administration includes interest on capital and charges for natural resources in its cost accounting. The "planned profit" (positive or negative, and different for different plants) invariably included in Soviet accounting reflects that state's valuation of the products. All this makes good sense in terms of modern marginal analysis, but cannot be deduced from a doctrine which wants to base economic planning on the labor theory of value.

Thus, the authors of "Teaching of Economics in the Soviet Union" are necessarily vague about the way prices deviate from "values" and are unable to formulate precise principles governing the deviation. As long, however, as such principles are lacking, there are no theoretical criteria to determine the prices, "planned profits," and planned output of products. Present Soviet economic theory does not yet provide an adequate guide for the management of the Soviet economy. This can be done only by incorporation into Soviet economics of the methods and techniques of marginal analysis.

OSCAR LANGE

University of Chicago

¹⁸ A very good account is given in Paul M. Sweezy, *The Theory of Capitalist Development* (New York, Oxford Univ. Press, 1942), pp. 109-30. The original papers of Bortkiewicz are published in *Archiv für Sozialwissenschaft und Sozialpolitik*, 1906 and 1907, and *Jahrbücher für Nationalökonomie und Statistik*, 1907.

¹⁹ *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), p. 526.

²⁰ *Loc. cit.*

The Communists and the Labor Theory of Value

The article, "Some Questions in the Teaching of Political Economy," published in *Under the Banner of Marxism* and recently translated in whole or in part in several publications (including this *Review*) has apparently excited quite extraordinary attention—attention that is hard to account for except in terms of a very naïve conception or misconception of the whole course of Marxian thought since Marx's own time. Aside from such newspaper comment as that of the *New York Times*, perhaps the most noteworthy and—in view of the scholarly record of the authors—remarkable discussions of this article have been those of Calvin B. Hoover (*Foreign Affairs*, July 1944, pp. 532 ff.) and Carl Landauer in this journal (June, 1944, pp. 304 ff.).

About the article itself, little really needs to be said. It is a perfectly straightforward exposition of Marxian economics for the benefit of teachers who have been in many cases confused by a mechanical and dogmatic use of phrases and catchwords and by an inability to apply Marxian principles to new situations. Economically, at least, it does not deviate—except, perhaps, in some references to Engels's theory of the family—by one iota from the most "orthodox" and rigorous Marxian textbooks.

It might have been expected that its *relative* praise of capitalism would be interpreted by the daily press as a complete change of front. This, of course, does not deceive Messrs. Hoover and Landauer who at least seem to be well acquainted with the almost dithyrambic language with which Marxians from Marx on have described the relative economic progress of the capitalist phase of history. They are concerned rather with the way in which, they think, the authors of the article reveal a shift in the economic and political orientation of Russian communism itself. Though I think that both the broader conclusions of Mr. Hoover and the more confined conclusions of Mr. Landauer are equally unfounded—*i.e.*, in their notion that the article makes a significant departure from orthodox Marxism—I shall confine myself for reasons of space and relevance to the latter.

The question raised by Mr. Landauer is this: Does the article show, as he claims, that the Russian economists have abandoned the labor theory of value and have replaced it with a marginal analysis of the type introduced by Menger, Jevons and Walras? So far as I can see, the authors of the article restated a fact which has been obvious to most competent Marxians since and including Marx but which has often been ignored or misconstrued. This fact is the quite simple one that neither the labor theory of value nor the theory of surplus value (which, of course, presupposes the former) say anything about actual prices of commodities or were intended to say anything about actual prices. A corollary of this is the equally obvious fact that Walrasian or Mengerian theory is in no way inconsistent with Marxism—except in so far as such theory is deliberately made to include premises or additions which presuppose a static capitalist economy.

The labor theory of value was used by Marx to throw light not on actual market conditions but on the course and development of capitalism. He knew

it could not throw any light on market prices simply because day to day competition averages out the prices of commodities in such a way as to obliterate their true "value" (*i.e.*, their labor content or content of "surplus value"). This fact has seemed to many, as it did to Böhm-Bawerk, a "great contradiction," but it is only a contradiction if Marx's theory be viewed as an essay in price analysis which it obviously is not and probably was not intended to be. Marx, presumably, thought he could disregard individual prices because he was concerned only with their total, or rather the over-all movement of the *rate* of profit, whose decline he deduced from the declining proportion of labor used in the *total* production of commodities. For a calculation of how much labor and material to allocate to this or that item—in other words, for a calculation of relative true price (in any economy)—it is obviously useful to resort to something like the "marginal" analysis. The essential problems here are not different in capitalism or communism although they can be distorted by monopoly, arbitrary state intervention, over-riding social policy and the like. I take it that this is about what the authors of the article meant and that this is all that they meant.

Apparently Mr. Landauer seems to believe that Marxians really think they can measure commodity prices in hours of socially necessary labor and that anyone who says this cannot be done as a matter of practical procedure, is "revising" Marx or communist theory in general. For example, he declares: "Marxian theory has always recognized that prices may deviate from values, but has restricted the possibility of such deviation to well defined instances. Obviously, if this restriction is removed, the labor value theory becomes an empty shell. From a Marxian point of view, the existence of a free market does not explain any long-term deviation of price from value (and, obviously, the authors of the statement do not speak merely of short-term deviations). In nearly all of his writings, Marx deals with a capitalist and not with a socialist economy and presents the labor value theory as the regulatory principle of capitalism. Why, then, should the elements of a capitalist order which survive in the Soviet economy necessitate the formation of prices different from labor value? Or which of the specific causes of deviation mentioned by Marx are supposed to exist in the Soviet Union? The authors themselves exclude the most important case, the sale at 'production price' as distinguished from value as a result of the tendency toward an average rate of profit. This 'law of average profit' has 'lost its meaning under socialism'" (p. 343).

The most important of the deviations (between price and value) to which Landauer refers here is obviously the averaging of profit explained in *Capital* (Vol. III, chapters 9 and 10). It is this "deviation" which explains the "great contradiction" and is admittedly an insuperable barrier to a practical fusion of value and price. In socialism, of course, surplus value in its old sense is abolished.¹ This does not mean, however, that value must then equal price nor

¹ Landauer misconceives here the statement that the "law of average profit . . . has lost its meaning under socialism." Of course it has "lost its meaning" since the profit system has "lost its meaning." But that does not change by one iota the problem of pricing as the key to a correct allocation of labor and material resources. Landauer here reads far too much into what is simply a platitude of all Marxian argument.

is there any evidence (rather the contrary) that Marx so intended. In the first place, it is not as yet a practicable proposition to express price in uniform labor units and perhaps it never will be. In the second place, any existing socialism (such as that of Russia) is primarily concerned not with relative amounts of surplus value in a given commodity (since it assumes *ab initio* that surplus value in its "exploitative" or "capitalistic" sense has disappeared) but with the problem of *allocating* materials and labor between various sectors of the economy. On such a problem the labor theory of value *per se* sheds no light and in fact only hinders a more direct approach such as that of the marginal utility school. The "profit" which shows as a result of—let us say—a temporary excess of demand over supply or the loss which shows as a result of what would be—under capitalism—overproduction is now either appropriated or made up by the state for the presumed benefit of all. Together profit and loss constitute useful—and indeed indispensable—signals of the economic efficiency of given enterprises, signals as useful to a socialist as to a capitalist economy.

The question, however, arises: Why, then, if the marginal utility analysis is so consistent with and useful to the Marxian cause, have Marxians, in fact, showed such marked hostility to the marginal utilitarians? The answer, I believe, is twofold. First, Marxians before the advent of the Russian experiment were concerned almost exclusively with the prognosis of capitalism in its broader aspects. Second, they rightly objected to the tendency of certain "marginal utility" economists to identify their analysis with capitalism and to deny its over-all validity. It is well known how vehemently, for example, Mises and Hayek have persisted in attacking socialism on the ground that it lacks any equivalent of a free competitive market and must therefore be overwhelmed by the intricacy of the calculations required to allocate labor and materials efficiently. The groundlessness of this argument has been well shown, for example, by Oscar Lange and F. H. Knight.²

The whole question, of course, is confused by Marx's adherence, on the one hand, to the doctrines of perfect competition and cost-of-production price and, on the other, to his well-known theory of surplus value. What Marx meant, I take it, was that the capitalist, by owning the means of production, could in fact collect a certain average minimum over and above what would be—otherwise—the cost of production and that the existence of this minimum is revealed by the labor theory of value, a theory whose proof is to be found only in the whole economy's development, *e.g.*, in the falling rate of profit especially. But he was not saying anything about the way in which individual prices—outside of this minimum—were determined. This is, quite properly, another problem, a problem to which on the whole economists since Menger,

² O. Lange, and F. M. Taylor, *On the Economic Theory of Socialism* (especially pp. 55-142). Lange shows clearly (p. 132) that Marx was aware of the "allocation" problem though he shared in this respect the limitations of Ricardo and the other "classical economists" of the time. F. H. Knight ("The Place of Marginal Economics in a Collectivist System," *Am. Econ. Rev.* Vol. XXVI, No. 1 [March 1936], suppl., pp. 255-66) argues much as Lange, although he advances objections to "collectivism" on quite other grounds (than those of Mises and Hayek).

Jevons and Walras have addressed themselves. It is true, however, that most "regular" economists have never been impressed by Marx's surplus value theory even though they themselves were very hard put to explain or justify profit. As for myself, I would certainly agree with those economists who, like Schumpeter, explain profit as the result solely of innovation and monopoly, as, in short, a phenomenon of an imperfectly competitive economy. Nevertheless, it must be recognized that the surplus value theory did provide a method of calling attention to actual phenomena—the rôles of profit, saving, and consumption in capitalism—during the long period wherein economists refused to acknowledge the reality of monopoly or of unemployment, save as "exceptions" to or "deviations" from the presumed general tendency toward a full employment equilibrium.

BROOKS OTIS

Hobart College

Marx and Engels on Distribution in a Socialist Society

The *American Economic Review* is to be congratulated on its publication of a translation of the complete text of "Teaching of Economics in the Soviet Union."¹ This implies a recognition that sustained coöperation with Russia in the interest of winning the war, preserving the peace, and implementing world economic prosperity, calls for an intimate knowledge and understanding of the working of the Soviet régime. It is very much to be doubted, however, whether the interpretation of the article by the translator, Miss Dunayevskaya,² contributes to such an understanding.

I shall not be much concerned with her assertion that "there exists in Russia at present a sharp class differentiation . . . between the workers, on the one hand, and the managers of industry, millionaire *kolkhozniki*, political leaders and the intelligentsia in general on the other,"³ and that the practical intent of the article is to provide a theoretical justification of this class differentiation together with the alleged exploitation of the worker by the "intelligentsia."⁴ Aside from the circumstance that our knowledge of conditions in the Soviet Union is much too meagre, this is hardly the appropriate time for an adverse dogmatic judgment on a régime whose leaders have been vindicated, in an im-

¹ *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), pp. 501-30

² *Ibid.*, pp. 531-37.

³ *Ibid.*, p. 532.

⁴ *Ibid.*, pp. 534, 537. That, as she asserts (p. 534), "is the real significance of the article" [for her]. Earlier, p. 532, she insists that "The whole significance of the article, therefore, turns upon whether it is possible to conceive of the law of value functioning in a socialist society, that is, a non-exploitative society." It would take us too far afield to proceed along this line of approach which raises, among others, the following questions: What is a law? What is an economic law? What is a law of value? What is the Marxian conception of these categories? What is the accepted, if there be any such, academic conception of these categories? Which of these two perspectives shall be applied? How shall an "exploitative society" be defined?

portant sense, by the fact that they prepared their country, both morally and materially, for the supreme task of inaugurating the destruction of the world-wide menace of fascism. The present article, therefore, will be concerned primarily with the theoretical^{4a} issue of distribution in a socialist society, with particular reference to the position of Marx and Engels on this problem. This approach is warranted by the circumstance that both the official pronouncement on the "Teaching of Economics" and the criticism of it by Miss Dunayevskaya invoke the authority of Marx and Engels.

Miss Dunayevskaya confronts "the traditional Marxist formula 'From each according to his ability, to each according to his need'" with the canon of wage payment expressed in the article, "From each according to his ability, to each according to his labor."⁵ This involves a glaring example of misplaced reference. "To each according to his need" is the "traditional" formula for pure communism which Marx and Engels embraced as the ideal goal of a socialist society. For a socialist society "as it emerges from a capitalist society, which is thus in every respect tainted economically, morally and intellectually with the hereditary diseases of the old society from whose womb it is emerging," Marx explicitly repudiates both distribution "according to need" and equal distribution.⁶ And, what is more important, he repudiates the approach which "Vulgar Socialism . . . has taken over from bourgeois economics," that "of treating and considering distribution as independent of production and thereby representing Socialism as turning principally on distribution."⁷ Marxism is preëminently a method and not a dogma, and violation of this method is a more serious departure from Marxism than alleged departure from the meagre prescriptions as to distribution in a socialist society left by Marx and Engels. The meagreness of such prescriptions represents neither evasion nor oversight on the part of Marx and Engels. It is a central aspect of the method of historical materialism which, nevertheless, has an important bearing on the problem before us.

"The materialist conception of history," writes Engels,⁸ "starts from the principle that production, and with production the exchange of its products is the basis of every social order; that in every society which has appeared in history the distribution of the products, and with it the division of society into classes or estates, is determined by what is produced and how it is produced, and how the product is exchanged."⁹ "Distribution, in its decisive features, is always the necessary result of the production and exchange relations of a particular society, as well as of the historical conditions in which this

^{4a} Strictly speaking, methodological, in terms of the implications of historical materialism.

⁵ *Ibid.*, p. 532.

⁶ Karl Marx, *Critique of the Gotha Programme* (New York, Internat. Publishers, 1933), pp. 29-31.

⁷ *Ibid.*, pp. 32-33.

⁸ Frederick Engels, *Herr Eugen Dühring's Revolution in Science (Anti-Dühring)* (New York, Internat. Publishers, 1939), p. 292.

⁹ Engels observes that "exchange or circulation is, however, only a sub-department of production" (*ibid.*, p. 170).

society arose."¹⁰ Marx and Engels do not limit the application of this method to past and historically extant societies; they apply it also to the interpretation of the future socialist society. "The mode of this distribution," writes Marx, "will vary with the productive organization of the community, and the degree of historical development attained by the producers."¹¹ The "historical conditions" together with "the degree of historical development" are obviously of particularly strategic importance in the case of the U.S.S.R. For as Lenin observed in 1920, while "it was easy for Russia, in the concrete historically unique, situation of 1917, to start a Socialist revolution, . . . it will be more difficult for Russia to continue and bring it to its consummation than for the European countries."¹²

It was with reference to one of the more advanced European countries that Marx and Engels discussed the organization of socialist economy "as it emerges from a capitalist society." Yet this is what they had to say about distribution. As compared with a capitalist society, observes Marx in *The Critique of the Gotha Programme*, the new society ushers in a régime of equality. "The equality consists in the fact that everything is measured by an equal measure, labour. But one man will excel another physically or intellectually and so contributes in the same time more labour. . . . This equal right is an unequal right for unequal work. It recognizes no class differences because every worker ranks as a worker like his fellows, but it tacitly recognizes unequal individual endowment, and thus capacities for production, as natural privileges. . . ."¹³ Further, one worker is married, another single, one has more children than another and so on. Given an equal capacity for labour and thence an equal share in the funds for social consumption . . . the one will be richer than the other. . . . But these deficiencies are unavoidable in the first phase of communist society when it is just emerging after prolonged birth-pangs from capitalist society. Right can never be higher than the economic structure and the cultural development of society conditioned by it."¹⁴

It should be noted, however, that the dictum "to each according to his labor" enunciated in the article on the "Teaching of Economics" is not limited to a socialist society which "is just emerging . . . from capitalist society."

¹⁰ *Ibid.*, p. 170. See also p. 168.

¹¹ *Capital* (Chicago, Kerr, 1906 ed.), Vol. I, pp. 90-91.

¹² V. I. Lenin, "Left Wing" Communism: An Infantile Disorder. (New York, Internat. Publishers, 1934), p. 46.

¹³ "Natural," obviously does not have a normative connotation. "The equal right" to unequal income is a "bourgeois right," and there is nothing sacrosanct about "bourgeois right" for Marx (*Critique of the Gotha Programme*, p. 29). It is a matter of "objective necessity."

¹⁴ *Ibid.*, pp. 30-31. Marx's reference to "deficiencies," however, implies a value judgment premised on other than a relativistic, pragmatic right enforced by both the limited productivity and the inherited "bourgeois" morality of the population. His ideal right is expressed in the next paragraph in the abolition of "the distinction between manual and intellectual work" and in distribution in accordance with the formula "to each according to his need." For Engels on the impracticability of equalitarian distribution in the early stages of a socialist society, see *ibid.*, pp. 30-31n., 58 and *The Correspondence of Karl Marx and Friedrich Engels, 1846-1895* (New York, Internat. Publishers, 1936), p. 337.

That "every worker . . . be rewarded strictly in accordance with the quantity and quality of work which he expends for society as a whole" is posed as the "guiding principle of social life under socialism"¹⁵ in general, as distinguished from the ideal goal of pure communism in which distribution will be "according to need." The following questions arise in this connection. Have not the leaders of the Soviet Union translated the necessities of the present stage of economic development of Russia, together with the imperatives imposed by exceedingly grim historical circumstances, into a generalized formula for distribution under socialism? And is not the enunciation of such a formula contrary to the method of historical materialism as developed by Marx and Engels?

The following by Engels might well have been written in response to the present controversy:

There has also been a discussion in the *Volkstribune* about the division of products in the future society, whether this will take place according to the amount of work done or otherwise . . . strangely enough it has never struck anyone that, after all, the method of division essentially depends on *how much* there is to divide, and that this must surely change with the progress of production and social organisation, so that the method of division may also change. But to everyone who took part in the discussion "socialist society" appeared not as involved in continuous change and progress but as a stable affair fixed once and for all, which must, therefore, have its method of division fixed once and for all. All one can reasonably do, however, is (1) to try and discover the method of division to be used *at the beginning*, and (2) to try and find the *general tendency* in which the further development will proceed.¹⁶

Writing, as they did, before the advent of a socialist revolution in any country, Marx and Engels limited themselves to a discussion, in very general terms, of "the method of division to be used *at the beginning*." Their position on that is abundantly clear. As for "*the general tendency* in which the further development will proceed," that, obviously, should involve an ever closer approximation to the ideal goal, "distribution according to need." An avowed ideal is not something to be deferred to the never, never day of the millennium.¹⁷ It is an active principle in the guidance of the society which truly embraces it. The exposition in the article on the "Teaching of Economics" is, therefore, at fault¹⁸ in seeming to pose a flat contradiction between distribution under a socialist society and under pure communism. Even *at the beginning*, in the Soviet Union, a strenuous effort has been made to provide for the "social needs" of the population by means of the socialized branch of consumption. In addition, an effort has been made to safeguard the minimum of "individual needs" through the structure of the turnover tax. This tax ranges from "1 or

¹⁵ *Am. Econ. Rev.*, Vol. XXXIV, No. 3, p. 521.

¹⁶ *Marx-Engels Correspondence*, pp. 472-73.

¹⁷ Thus, Lenin in 1920, "it has never entered the head of any Socialist to 'promise' that the highest phase of Communism will arrive." *State and Revolution* (New York, Internat. Publishers, 1932), p. 80.

¹⁸ The fault is one of omission. The article dwells exclusively on the differentiation of individual money incomes.

2 per cent" of the accounting price of production of consumer commodities¹⁹ which comprise the staple articles of consumption "up to nearly 100 per cent" in the case of outright luxuries.²⁰ The socialized branch of consumption, "*what is destined for the satisfaction of communal needs*, such as schools, health services, etc.," observes Marx, "will grow in proportion to the development of the new society."²¹ With the ever-broadening scope of socialized consumption, differentiation of individual incomes recedes in importance. On the assumption of increasing per capita output, this is not incompatible with an absolute increase in the range and amount of consumer commodities which become available for individual purchase.

Furthermore, with a widely diffused, scientifically grounded technical education which, Marx and Engels insist, is basic to the constitution of a socialist society, the spread between the higher and lower individual income brackets should become greatly attenuated. Long-run equilibrium rates, which correspond to the relative costs of training different types and categories of labor, will supersede the short-run rates, heavily loaded with the scarcity rents, which of necessity have prevailed *at the beginning* in the Soviet Union. The following by Engels possibly goes so far as to suggest that the very differentiation of incomes should ultimately be abolished: "In a society of private producers private individuals or their families pay the costs of training the skilled worker; hence the higher price paid for trained labour power also comes first of all to private individuals, . . . In a socialistically organized society, these costs are borne by society, and to it therefore belong also the fruits, the greater values produced by skilled labour. The labourer himself has no claim to extra payment."²² Engels's neglect of the problem of incentives, however, may indicate that his analysis refers to a communist society in which "from each according to his capacities" will be the natural and spontaneous concomitant of a very high degree of social consciousness. Furthermore, he was opposed, in principle, to laying down a rule for distribution under socialism, and that is the "guiding principle" enforced by the standpoint of historical materialism. As for the Soviet Union, in other than the far distant future, the necessity for increased output is going to be so great that it would be contrary to elementary common sense for the régime to dispense with the stimulus provided by the opportunity to rise in the scale of material welfare.²³ The essence of the transition from a capitalist to a socialist society for Marx and Engels was, after all, most emphatically not the introduction of ideal distribution, but the socialization of production—so that there might be "progress without anarchy," without the recurrent manifestations of that anarchy in the "continuous succession . . . of prosperity, depression, crisis, stagnation, renewed prosperity, and so on."²⁴

¹⁹ Those sold in the consumer market.

²⁰ Maurice Dobb, *Soviet Planning and Labor in Peace and War* (New York, Internat. Publishers, 1943), p. 58.

²¹ *Critique of the Gotha Programme*, p. 28.

²² *Anti-Dühring*, p. 222.

²³ Together with the objective recognition involved in a higher money income.

²⁴ Marx, *The Poverty of Philosophy* (New York, Internat. Publishers), p. 59.

As for progress in the direction of a truly democratic society in the Soviet Union, that will depend, above all, on a rapid increase in productive capacity and the lifting of most of the burden of armament. The following by Engels, while it was applied to prevailing and past societies, is not without pregnant implications for the political development of a socialist society: "so long as human labour was still so little productive that it provided but a small surplus over and above the necessary means of subsistence . . . the great division of labour between the masses discharging simple manual labour and the few privileged persons directing labour, conducting trade and public affairs, and, at a later stage, occupying themselves with art and science" was both a social necessity and the prerequisite of progress. The "special class," which performed the social functions, "never failed to impose a greater and greater burden of labour, for its own advantage, on the working masses." But, asserts Engels, thereby emphasizing the standpoint of historical materialism, "all historical antagonisms between exploiting and exploited, ruling and oppressed classes to this very day find their explanation in this same relatively undeveloped productivity of human labour. . . . Only the immense increase of productive forces attained through large scale industry makes it possible . . . to limit the labour time of each individual member to such an extent that all have enough free time left to take part in the general—both theoretical and practical—affairs of society."²⁵

What are the implications of the foregoing for the social and the political development of the Soviet Union? The "small surplus over and above the necessary means of subsistence" together with the need for intense and prolonged labor will enforce, in all probability, for some time to come "the great division of labor between the masses discharging simple manual labour and the [relatively] few privileged persons." If this situation be excessively prolonged, there is danger that the "intelligentsia" may become constituted into a class or estate. Those who still aspire to the destruction of the Soviet régime²⁶ will insist on judging its present operation by the standards of an equalitarian Utopia. Those, on the contrary, who have a genuine interest in the welfare of the Russian masses and in the career of political and social democracy in Russia will try to promote a generous policy of foreign investment in that country and the allaying of ill-informed hostility toward the Soviet régime.

The ensuing increase in the "surplus over and above the necessary means of subsistence" resulting from the liberation of resources for the purposes of consumption, the more rapid increase in productivity and the lifting of most of the burden of armament, however, only furnish the material premises for the inhibition of social stratification and the realization of the promise of political democracy contained in the Soviet constitution of 1936. To this must be added, we may infer from Marx and Engels, a system of widely diffused

²⁵ *Anti-Dühring*, pp. 200-01.

²⁶ Or the condemnation of that régime incident to the factional conflict among socialists within this country.

liberal and scientific education. That would preclude the monopoly of education by a given group which, in a highly productive society devoid of the private ownership of the means of production, is the only abiding premise for class domination. It is, therefore, to the provisions for leisure and education, rather than to the prevailing range of income differentiation, that we must look for criteria as to the promise of a classless society in Russia. Moreover, a system of education of adequate scope and appropriate character will greatly minimize the persistence of "non-competing groups" which are at the base of wide income differentiation. I will permit myself to add that a liberal and scientific teaching of political economy will reveal that, in a society characterized by pronounced inequality of income, "distribution according to labor" is largely devoid of quantitative significance in terms of social welfare.

LEO ROGIN

University of California

World's Output of Work

An estimate of the world's output of work, based chiefly on 1929 data, was published in this *Review* for March, 1933 (Vol. XXIII, pp. 56-60). Since more than a decade has elapsed, it has seemed desirable to reestimate the current situation on the basis of 1939 data, that year being chosen not only to correspond with the previous estimate, but also because it somewhat minimizes the difficulties which were created by World War II.

These could not be altogether overcome, however. The aim was to reproduce the figures of the table which appeared on page 58 of the earlier publication and set opposite them, for easy comparison, the corresponding figures for 1939. This was not possible. No data could be obtained, for the later date, for power derived from coal in Japan or Argentina, while the puzzling problem of what to do with Austria, Czechoslovakia, and Poland was coped with by assuming that the first two should be wholly included in Germany, as was the coal and water power of Poland, while one-third of the population and part of the petroleum of Poland was included in Russia. With these comments the table which follows will perhaps be self explanatory.

A full explanation of the basis of calculation of these estimates was given in the earlier paper, but for the convenience of the general reader it may be said here that the output of human work was calculated on the basis of 1/30 horsepower for 10 hours per day per capita. The coal power was calculated on the basis of 4 pounds of coal per horsepower-hour of work; with the exception of two countries which use large quantities of lignite, and where an adjustment was made for its lower calorific power. One barrel of crude petroleum was estimated to yield, on the average, 183 horsepower-hours of work. For water power, official statistics of actual horsepower-hours of output are available for the United States and Canada, and the U. S. Geological Survey publishes estimates of the potential water-power resources of all coun-

	(Millions of horsepower hours)										Total	Population (millions)		Daily output per capita hp-hr.	
	Human		Coal		Petroleum		Water		1929	1939		1929	1939	1929	1939
	1929	1939	1929	1939	1929	1939	1929	1939							
United States	40	43.8	1,001 ^a	784.4 ^a	481	617	121	166.7	1,643	1,611.9	122.77	131.41	13.38	12.27	
Canada	3.3	3.7	55	39.6	17.6	25.4	59	104.8	134.9	173.5	10.35	11.02	13.03	15.74	
Norway	0.9	1.0	3.6	4.6	0.6	2.57	15	26.5	20.1	34.7	2.65	2.94	7.58	11.80	
Belgium	3	2.8	50	43.1	1.7	3.5	—	0.03	54.7	49.4	7.99	8.39	6.85	5.89	
Great Britain	15	15.4	270	302.7	28.3	45.5	4	4.4	317.3	368.0	47.71	46.21	6.65	7.96	
Germany	21	37.7 ^a	333	548.9 ^a	9.5	27 ^a	13	33.1 ^a	376.5	646.7	62.34	113.15 ^a	6.04	5.72	
Sweden	2	2.1	7.5	14.4	1.9	5.3	16	20.4	27.4	42.2	6.12	6.31	4.48	6.69	
Switzerland	1.3	1.4	3.9	5.4	1.0	1.3	11.5	24.4	17.7	32.5	4.02	4.21	4.41	7.72	
France	14	14.2	127	101.0	12.3	25	24	43.2	177.3	183.4	40.74	42.42	4.35	4.32	
Czechoslovakia	5	42	42	26.0	1.8	7.4	1.5	2	50.3	37.6	14.52	15.25	3.46	5.40	
Australia	2.1	2.2	10	0.9	0.9	—	6	2	22.1	37.6	6.43	6.96	3.44	5.40	
Austria	2.2	2.2	12	25.5	1.8	3.7	6	2	21.1	32.7	6.67	7.01	3.16	3.22	
Union of So. Africa	2.3	3.4	16	21.6	3.1	5.9	—	.09	20.1	32.7	6.93	10.16	2.90	3.22	
Holland	2.5	2.9	16	21.6	3.1	5.9	—	—	20.1	30.4	7.62	8.73	2.83	3.48	
Poland	10	•	48 ^a	2.7	1.7	•	—	—	59.7	•	30.84	34.77	1.94	1.88	
Chile	1.5	1.5	2.0	2.7	3.8	2.7	1.0	1.8	8.3	8.7	4.36	4.63	1.90	1.88	
Japan	21	24.3	52	4.5	7	12.7	30	49.1	110	—	62.94	72.80	1.75	1.88	
Argentina	3.6	4.3	4.5	—	10	14.4	0.35	0.54	18.45	—	10.90	13.01	1.69	—	
Italy	14	14.7	23	20.1	4.6	10.9	27	50	68.6	95.7	41.17	44.03	1.67	2.17	
Spain	7.6	8.5	13	10.5	1.8	2.85	8	11.2	30.4	33.05	22.75	25.37	1.34	1.30	
Mexico	5.5	6.5	1.5	9.5	9.5	9.3	4.0	3.8	20.5	29.1	16.40	19.48	1.25	1.49	
Hungary	2.8	3.7	6	17.1	0.8	1.0	—	.04	9.6	21.8	8.60	11.14	1.12	1.96	
Rumania	6	6.7	4.1	3.9	6.8	7.5	0.8	1.0	17.7	19.1	17.39	20.09	1.02	0.95	
Russia	53	56.9	56	219.7	35	85.3	4	15.3	148	377.2	158.50	170.47	0.93	0.21	
Bulgaria	2.0	2.2	2.4	0.6	0.3	0.5	0.5	0.6	5.2	3.4	5.60	6.55	0.93	0.52	
Yugoslavia	4.4	5.2	4.2	9.7	0.5	—	2	2	11.1	16.9	13.29	15.63	0.84	1.08	
Peru	1.8	2.3	0.4	0.2	0.9	1.3	0.5	1.4	3.6	5.2	5.50	6.92	0.66	0.75	
Brazil	13	14.7	3.4	2.2	3.0	4.4	6	8.9	25.4	30.2	40.27	44.12	0.63	0.68	
India	106	117.8	34	40.3	8	8.2	3	5.0	151	171.3	318.88	352.84	0.47	0.49	
China	133	161.1	43	55.1	4.13	3.4	—	—	180.13	219.6	400.80	482.30	0.45	0.46	

^a Includes natural gas.

^b Quantities omitted; too small to be important.

^c Includes Austria, Czechoslovakia and ^d of Poland.

^e Included in Germany.

^f Divided between Germany and Russia.

^g Data lacking.

tries. The other countries are credited with an actual output which bears the same ratio to their potential as in the United States.

It will be noticed from the table that Russia appears to have more than doubled its per capita output of work in a decade. Several other countries show notable increases, especially Canada; the latter's increase (as well as some of the others) being chiefly due to water power. The per capita decrease in the United States is because the increase in petroleum and water power failed to compensate for the decline in coal output; it may be statistical rather than real, since the efficiency of the use of the first two is probably greater than that of coal. This may also apply to Belgium. The per capita decline in Germany is due to the inclusion of the lower-ranking populations.

I am deeply indebted to Mr. Melvin I. White, graduate student in economics, who not only performed all the tedious work of arithmetical calculation from the basic data for 1939, but assembled much of it, and wrestled with the problem of making it conform to the data used for 1929.

THOMAS T. READ

Columbia University

Pragmatism and Economic Theory: A Rejoinder

In the December 1944, issue of this *Review* Dr. Dudley Dillard criticizes my discussion in a recent article¹ of the relation between economic theory and economic policy. In my article I emphasized that theoretical arguments in the field of economics are largely, though often not consciously, determined by social philosophy, which in turn depends on the general political trend. I applied this notion to the Keynesian theory of employment, in particular to the concepts of marginal propensity to consume, marginal efficiency of capital and liquidity preference.

Dr. Dillard expresses surprise that I have based my reasoning on Pareto's view concerning nonlogical sentiments and "derivations" without even mentioning American pragmatism. It must be emphasized, however, that the Pareto aspect and the pragmatic aspect are entirely different, and the explanation of my "omission" is simply that I accept the Pareto view, but I reject the application of the pragmatic doctrine to the problem of the relation between economic theory and economic policy. According to Pareto, the psychic state of a people, in particular powerful interests, determine in the long run the policy of a country as well as the theory which is to justify that policy. A theory may seem to be conceived independently of the consequences it has in regard to policy. Actually it cannot escape the influence of the political trend which determines, at least to a great extent, direction and outcome of the theoretical reasoning.

Applying the Pareto aspect to the Keynesian theory, I stated that this theory is an example of the influence the political trend exerts on the argu-

¹ *Am. Econ. Rev.*, Vol. XXXIV, No. 1 (March, 1944), pp. 87-97.

mentation of a writer on economics. Needless to say, this inference may well be exerted by the way of determining first the social philosophy of the writer. The main point is that notions of *what should be* direct—often unnoticed by the theorist—the conception of *what is*, or rather what is supposed to be. In order to prove that the Keynesian theory is a case in point I tried to show that the economic policy Keynes suggests as a consequence of his theory actually does not follow as a logical corollary from his theoretical reasoning. In this connection Dr. Dillard expresses his “fundamental criticism” of my position on the ground that in Part III of my article I conclude “that policy is prior to theory,” whereas I analyze “Keynes’s theory in Part II as though theory were prior to policy.” But is there really a contradiction? I am inclined to believe that a fairly careful reader could not discover any. In Part II I show that the policy suggested by Keynes does not necessarily follow from his theory, as the reader would expect; and in Part III I conclude that policy and/or social philosophy may well determine the structure of theory. Now Dillard takes issue with my question: “Does the suggested policy [of Keynes] follow necessarily from the [Keynesian] theory?” and he calls this question “wrong.” But why is the question wrong? If a writer says, explicitly or implicitly, that if and only if p (for example, more equal distribution of income by heavy taxation of the wealthy), then q (full employment), and if I can prove that there may be q without p , I am entitled to say that the explicit or implicit statement “if and only if p , then q ” is not true; and no pragmatist who regards logic as something more than a political instrument will deny that.

When I wrote my article I expected objections on the ground that I had done Keynes an injustice by stating that somehow political purposes entered his apparently “objective” theorizing. Now I am surprised to see that, according to one critic at least, I have not gone far enough because I did not use pragmatic philosophy as a means of solving the question concerning the relation between economic theory and economic policy.

Let us examine now the positive contribution of Dr. Dillard to our problem. In suggesting an investigation of “policy as the operational meaning of theory,” he rightly points out that the operational approach has come to play an important rôle in modern philosophy and natural science, and he advances the undoubtedly original idea of applying that approach to economics. Fortunately we are not left in the dark about the way Dillard wants to apply the operational approach to economics, in particular to the Keynesian theory. “The operational concept” is to be used “to explain theories as plans of action in the sense that [John] Dewey defines ideas as plans of action.” Dr. Dillard contends that the general Keynesian concepts have a specific practical meaning, and he misses in my analysis the suggestion “that a certain theory is articulated because the pragmatically selective perspective of the theorist leads him in that direction. . . . The world of policy is prior to the world of theory not only in the sense that theories which are to survive must conform to underlying political trends, but also in the sense *that the thought of ‘theorists’ represents a more sophisticated way of thinking about policy.*”

* Italics are mine.

. . . Keynes the man of policy has given vitality to Keynes the man of theory. . . . *Because he was so vitally interested in policy he worked out his new General Theory as an argument for his policy. Thus he drew economic theory back to the path of realistic policy.*"³

I am afraid Dr. Dillard is not quite aware of the grave, nay disastrous, consequences to which the general acceptance of his position would lead with respect to the future development of economic theory. The proposition that "the thought of theorists represents a more sophisticated way of thinking about policy" means in less sophisticated words that theory and theoretical concepts have to be used as tools for the vindication and carrying out of a certain policy. I do not believe that Keynes himself would accept this interpretation of his theory, and I am even doubtful whether American pragmatists, to whom Dillard refers, would agree to it.⁴ It is one thing to regard ideas as plans of action in the field of natural science. It is another thing to apply this consideration to the field of social science, as Dr. Dillard suggests. In the former sphere the concept may well have some advantages, although there are, even in that field, serious drawbacks. To use Bertrand Russell's words: When what passes for knowledge is considered to be no more than a momentary halting place in a process of inquiry which has no goal outside itself, inquiry can no longer provide intellectual joys, but becomes merely a means to better dinners and more rapid locomotion.⁵ However, this drawback is nothing compared to the catastrophic results which would follow from the general adoption of Dr. Dillard's view in the economic field. The conception of ideas as plans of action in physics and chemistry is based on the wish to foretell future events and thus to dominate the material world. The ultimate goal of ideas used as plans of action in the economic sphere in conformity with Dillard's proposition could be no other than to rule society. Ideas would become mere tricks, and theory would be degraded to propaganda. Because I do not treat the Keynesian concepts as having "specific pragmatical meaning, discoverable by the operational approach," Dr. Dillard declares me "guilty" of "wandering all over the place." Well, I prefer to go on wandering to accepting his notion of economic theory. The level of so-called theoretical discussions in economics is not always very high even without following Dr. Dillard's suggestion. What would it be if that suggestion were generally accepted?

OTTO VON MERING

Tufts College

³ Italics are mine.

⁴ See Dominique Parodi in *The Philosophy of John Dewey* (Evanston and Chicago, 1939), where the author (p. 233) cautions against a frequent misconception concerning the instrumental logic of pragmatism. He denies that pragmatism "would want to make of thought merely a means for practical end,—'practical' being taken in the sense of certain material utilities like drinking and eating." According to pragmatism, "what is better for us to believe is true, *unless the belief incidentally clashes with some other vital benefit.*" (William James, *Pragmatism* [New York, London, 1943], p. 77; italics are mine). In our case the independence of theory as to political trends and political slogans may well be regarded as such "other vital benefit," so that the operational approach, applied in Dillard's manner, would have to be rejected even from the pragmatic angle.

⁵ Bertrand Russell in *The Philosophy of John Dewey*, *op. cit.*, p. 156.

Consumer Coöperatives and Economic Efficiency

It has long been realized by many economists that business efficiency (financial profits) and economic efficiency (resource allocation) are not necessarily identical and cannot always be maximized by the same policies.¹ This recognition has become even more widespread since the advent of the various theories of monopolistic and imperfect competition.² There is, however, at least one type of business organization which under certain circumstances can be theoretically expected to achieve economic efficiency while simultaneously serving important private interests. This is the consumer coöperative which is intelligently directed in the best interests³ of its owning clients. This theorem is novel and practically important. It means that certain types of coöperative organizations and policies favor the general economic welfare and hence should perhaps receive greater public support through legislation. In the past the pros and cons of consumer coöperation have been argued in terms of consumer education, yardsticks for non-coöperative retail outlets, reduction in marketing costs, and so forth. This note attempts to break new ground by emphasizing the contribution of consumer coöperatives to optimum pricing policies.⁴

Economic Efficiency

In this note it is supposed that economic efficiency concerns the allocation of resources among different business units. We shall follow Lerner, Kahn, and others in supposing that the "monopoly gap" should be equal in all cases when gauged according to some relative measure.⁵ We shall go further and agree with Hotelling, Meade, and others that the aim of public policy should be not only equal but zero "monopoly gaps."⁶ That is to say, the general welfare requires that all business units—whether farms or firms—follow a price policy which results in a scale of operations such that marginal cost is equal to the marginal demand price of the market.⁷ This is held to be the social optimum because (1) the demand schedule is usually assumed to represent at least the monetary value⁸ placed by the market as a whole on the utility

¹ For example, this is essentially the theme of Pigovian welfare economics and the literature which has grown up around it.

² This is pointed out by R. F. Kahn in "Some Notes on Ideal Output," *Econ. Jour.*, Vol. 45 (Mar., 1935), pp. 1-35.

³ "Best interests" is defined as maximizing net consumers' surplus (*infra*, pp. 150-51).

⁴ Some comments regarding the reality of these alleged marketing economies appear in the final section.

⁵ I.e., $(P-MC)/P$. See A. P. Lerner's "The Concept of Monopoly and the Measurement of Monopoly Power," *Rev. Econ. Stud.*, Vol. 1 (Oct., 1933), pp. 157-75. Also Kahn, *op. cit.*

⁶ H. Hotelling, "The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates," *Econometrica*, Vol. 6 (July, 1938), pp. 242-69. J. E. Meade, *An Introduction to Economic Analysis and Policy* (New York, Oxford Univ. Press, 1938, Part II).

⁷ Diagrammatically, in the case of monopolistic competition, output and related price should be determined by the intersection of the demand and marginal cost curves.

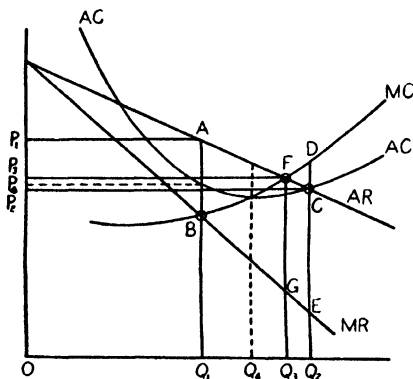
⁸ This reservation is necessary because of income inequalities and the impossibility of

provided by the marginal unit and (2) the marginal cost curve is identified with opportunity costs⁹ incident to using resources in making this same "final" unit of product.¹⁰ However, the profit-maximizing management of a marketing concern will not seek this equation when it realizes that the relevant sales curves are less than infinitely elastic. It will then prefer to equate marginal revenue and marginal cost and will consequently operate at a suboptimum volume and supraoptimum price. Is there anything about the purposes and organization of a consumer coöperative which might render the operators' welfare and economic efficiency compatible? The answer is Yes, *providing* the consumer interest and control are respectively paramount *and* aware of their real self-interest.

Profit Maximizing Coöperatives

The price policies of some consumer coöperatives are motivated by a desire to maximize profits. Accordingly the resource allocation which results is no different from that which would occur under normal conditions of monopolistic competition. The adjoining diagram, in which the demand curve is drawn on the assumption that buyers have no anticipations regarding eventual rebates or assessments, depicts such a case. A price of P_1 maximizes the financial return, for marginal cost (MC) and marginal revenue (MR) are equal at a turnover of Q_1 units per time period. The resulting "monopoly gap" (AB) is considerable and undesirable.

There are a number of reasons why, despite the superficial paradox, consumer coöperatives often duplicate the policies of regular businesses. First, this policy, providing that a profit results,¹¹ permits the greatest possible total rebate for the entire membership.¹² Second, consumer coöperatives are often in debt and the members may wish to pay this off as rapidly as possible: in this case they should logically favor a price of P_1 . Third, business prudence often dictates the building up of cash reserves, inventories, or simply expansion. If this is to be done through reinvestment of profits, it can be accomplished most rapidly by following the usual formula of equal marginal cost and marginal revenue. Fourth, the management of a coöperative will often quote "normal" and "accepted" prices so as to avoid undue hostility from business rivals and retaliatory price cut-



⁹ This theoretical identity presumes absence of monopsony distortions.

¹⁰ The abstract reasoning employed here is concisely stated by E. W. Clemens as a footnote to page 795 of his "Price Discrimination in Decreasing Cost Industries," *Am. Econ. Rev.*, Vol. XXXI, No. 4 (Dec., 1941).

¹¹ As it does in the diagram, for at Q_1 volume the price exceeds the average cost.

¹² The effective price would be P_4 (i.e., equal to average cost) if all profits were distributed amongst members according to the amount of their purchases.

ting. This normal price will be approximately P_1 unless the cost and revenue functions of the cooperative under discussion are abnormal. Fifth, the destiny of perhaps most small- and medium-scale retail establishments seems to be little better than to "break even" over periods of time. Consequently, in the customary absence of any means for financing continual loss, there seems to be no choice for those in charge but to maximize profits or minimize losses as the case may be.¹⁸ In view of these five reasons it is not difficult to understand why most cooperative managers might be expected to measure success by their profit showing. However, a traditional price policy (P_1 in the diagram case) is *not* the best from the viewpoint of either the community at large¹⁴ or the consumers themselves.¹⁵

Price Minimizing Cooperatives

The principal argument for joining and patronizing a consumer cooperative is of course that the buyer saves money in doing so.¹⁶ The acid test with the buying public is whether the "coop" prices are really lower after all aspects of related service are considered.¹⁷ Conceivably many a manager of a consumer cooperative considers low prices—either gross (before rebate) or net (after rebate)—to be his proper objective. But normally he will prosecute this program only to the point that all potential profits have been lost. In this case the lowest possible *gross* price would occur at a sales volume of Q_2 ¹⁸ and the lowest possible *net* price at a volume of Q_4 .¹⁹ In many cases the lowest possible net and gross prices will be similar and will occur at the same volume of sales.²⁰ However, when this distinction is real, the lowest net cost will necessarily be less than the lowest gross cost. In reality low prices are not a valid objective for cooperatives owned and operated by and for consumers.

Maximizing Net Consumers' Surplus

It is of course true that consumers—in the ordinary case where they do not have an ownership interest in the store they patronize—receive a larger surplus the lower the prices demanded. The situation is very different, however, in the instance of a consumer cooperative where profits (or possibly losses) are shared by the members according to the amount of their purchases. Under this circumstance the consumer membership cannot press indiscriminately for

¹² The case depicted in the diagram is obviously not one of just "breaking even." The illustration for such a case—the Chamberlinian tangency solution—would show average costs in excess of price for every output save that which equates marginal costs and marginal receipts.

¹⁴ Because of the resultant monopoly gap of AB.

¹⁶ See the section headed *Maximizing Net Consumers' Surplus*.

¹⁸ This is not intended as disparagement of those many persons whose loyalty to the cooperative principle is based on an almost mystical faith in its moral superiority.

¹⁷ See the final section.

¹⁹ Because this is where the curves of average total cost (ATC) and average revenue (AR) intersect.

²⁰ Because average total cost is lowest at this volume.

²¹ I.e., when the demand curve intersects the average total cost curve at or before the output which minimizes per unit costs.

lower prices and larger consumers' surpluses, for they will be paying these to themselves in sacrificed profits or realized losses.²¹ Conversely, it would be folly to think only of adding to profits through higher prices if this forces an incommensurate loss of consumers' surplus. Obviously, the two elements of profits and consumers' surplus must be weighed against each other, and the physical sales volume which balances them at the margin must be estimated and attained. This process can be best described in terms of the diagram already employed. At output Q_1 the effect of a slight increase in volume resulting from a small price reduction is an increase in gross consumers' surplus of AB (difference between the demand price and marginal revenue) and a zero change in profits (because marginal revenue and marginal cost are equal): consequently, the net addition to consumers' surplus after rebate is also AB (demand price minus marginal cost), and the volume is suboptimum (because a "monopoly gap" remains). At output Q_2 the change in net consumers' surplus is minus CD (the demand price less marginal cost), because the increase in gross consumers' surplus of CE (demand price less marginal revenue) is more than offset by the decrease in profits of DE (marginal cost less marginal revenue): without a doubt the volume is supraoptimum (because the demand price less marginal costs is a negative magnitude). Only at Q_3 is the incremental change in gross consumers' surplus of FG (demand price minus marginal revenue) equal in magnitude but opposite in sign to the incremental change in profits of FG (marginal revenue minus marginal cost). This follows from the fact that the demand price and marginal cost are equal at this volume and accordingly Q_3 is the optimum rate for the consumer cooperative.

This equating of demand price and marginal cost is, however, also the adjustment which, always assuming no monopsony power is involved, has been recommended by Hotelling and others in order to improve resource allocation for the economy at large. Enlightened self-interest on the part of the managements of consumer cooperatives should cause its more extensive adoption. The policies of other types of distributing outlets presumably will not.²² These theoretical conclusions may be of great social importance.²³

Practical Objections to the Theoretical Optimum

There are a number of practical difficulties which might be encountered by a cooperative attempting to operate so that the net consumers' surplus was maximized.

First, as previously stated, the price *may* be dictated by competitive cus-

²¹ This statement must be modified in those cases where nonmembers also patronize the cooperative extensively, and augment, but do not share, the profits paid out to members as periodic rebates.

²² For reasons already detailed (*supra*, pp. 148-49).

²³ The writer, in concluding this section, believes that a detailed validation of the consumers' surplus concept is unnecessary. Despite minor defects it remains too powerful a tool of analysis to remain in the discard. A seemingly strong case for its employment has been made by H. Hotelling (*op. cit.*) and J. R. Hicks ("Rehabilitation of Consumers' Surplus," *Rev. Econ. Stud.*, Vol. 8 [Feb., 1941]). Its limitations have been admitted elsewhere by this writer. ("The Monopsony Case for Tariffs," *Quart. Jour. Econ.*, Vol. 58 [Feb., 1944]).

tom, and a price of P_s might lead to such retaliation by rivals that marginal revenue for additional output might in reality be negative.²⁴ On the other hand, the managements of the coöperative and competing stores may all suppose that they will not be followed should they raise prices.²⁵ When this asymmetrical supposition is common we can reasonably expect the perpetuation of any traditional price.²⁶ It is unlikely that such a traditional and unalterable price determination will happen to be the one which we have stated to be theoretically ideal.

Second, profits may be zero though maximum at some output less than that which equates marginal costs and the marginal demand price. Adherence to our formula will then entail losses which must be financed in some way. Presumably this could be effected by an assessment of the coöperative's membership.²⁷ Nor is this such a ridiculous procedure as might at first be imagined, for it will be recalled that the amount of the total assessment will be *less* than the monetary value of the consumers' surplus realized by lowering price and expanding output. Unfortunately it is not always possible to collect in full after the event. The danger of such bad debts might be partially mitigated by the payment of a supposedly sufficient and uniform membership deposit at the commencement of each fiscal period. Buyers in small volume would eventually obtain a rebate as their final assessment per dollar of purchases would likely be less than their original lump sum deposit. This deposit could be in lieu of the usual membership fee. An arrangement such as the one suggested here would naturally not be applicable for the casual customer who does not care to become a member and pay a deposit. Rather than lose the patronage of these people it might be politic to sell them merchandise—but always at a certain markup above the prices quoted to members.

Third, it is questionable whether the management and membership of a consumer coöperative will appreciate the detailed reasoning behind the claim that self-interest requires the coöperative to equate incremental costs and demand price at the margin. Without this understanding there may be considerable unwillingness to adopt the goals presented here.²⁸

²⁴ So far we have supposed that the demand curve (AR) in the figure is based on the assumption that the prices of other and rival firms always remain unchanged.

²⁵ In other words, using Chamberlinian terminology, "little dd'" may be significant above the traditional price and "big DD'" below it.

²⁶ The possibility and consequences of such a discontinuous demand curve has been suggested by R. L. Hall and C. J. Hitch ("Price Theory and Business Behavior," *Oxford Economic Papers*, No. 2).

²⁷ It might be objected that it is excessively roundabout to charge such low prices that assessments must be collected in compensation: however, this is no more circuitous than the more usual practice of charging overly high prices and then distributing the profits.

²⁸ It hardly seems necessary to mention that a management is usually in considerable doubt as to the magnitude of marginal costs. This is not to be wondered at when one considers, as an extra complication, that marginal costs are partially dependent on the time period supposedly allowed for adjustment. The substitution of a different goal (*i.e.*, equation of marginal cost to price rather than marginal cost to marginal revenue) will be of little practical importance if ignorance of the significant relationships precludes their attainment save by chance.

Internal Organization of Consumer Coöperatives

The policies pursued by the managers of a coöperative will usually depend upon the voting strength of the various interests concerned. Consequently, the political organization of the undertaking is important. Indeed, the economic desirability of consumer coöperatives, and hence perhaps the governmental support often enjoyed by them, might be made to depend upon their internal structure.

In practice most consumer coöperatives are governed substantially according to Rochdale principles. One of the outstanding characteristics of this system of operation is the "one member, one vote" principle. This rule is seldom mitigated by any consideration of the value of each member's purchases or investment. Management under the Rochdale plan should be sympathetic to the price policies described above as being economically optimum.²⁹ Actually it would be difficult to evolve a practical organizational structure different from the Rochdale type which would remove the dangers of both financial domination and consumer irresponsibility.

Control of a coöperative should never be vested entirely in those responsible for financing part or all of the undertaking. The natural inclination of such persons will be to maximize the monetary return. This will even be true when the stockholders are limited as such to a certain percentage return on their investment, with any remaining surpluses being distributed as a patronage dividend according to the value purchased by each member. The appointed manager, in order to play safe, will still set prices too high and hence cause too low an output. Such unrelieved caution deprives the patronizing members of an unduly large part of the consumers' surplus which might have been available for them.

On the other hand, voting control according to total value of purchases might well prove unworkable. There might be a human and shortsighted temptation for the voting consumers of the day to lower prices excessively, thus, in effect, donating past investments of working capital to current consumers in the form of purchasing economies. Such tendencies would seriously threaten the financial security of any coöperative if left unchecked.³⁰

The best price policy for consumer coöperatives has already been described as the balancing of consumers' rebates (or assessments) against consumers' surplus. However, as already suggested, this may be too subtle an approach for general appreciation. More frequently the issue as seen by the membership may be financial conservatism (*e.g.*, conventional pricing, maximizing of profits, and reinvestment of resultant surpluses) *versus* consumer impatience (*e.g.*, low retail prices, full patronage dividends, and greater volume). A compromise policy would be one which strives to maximize retained financial

²⁹ *Supra*, pp. 150-51.

³⁰ It has been suggested above (p. 152) that coöperatives, which run deficits should assess each member a uniform and provisional amount at the beginning of each financial period in order to recoup this loss. The psychological effect of this proposal might be to accentuate the danger just described, with the voting consumers pressing for lower prices in order that the assessment they have paid may prove worth-while, and feeling morally justified in making these demands.

profits and experienced consumers' surplus *jointly* rather than one of them alone. Policies designed to reach this goal would also eliminate the "monopoly gap" and thus satisfy the more basic requirement we have set ourselves.³¹ Rochdale voting principles may favor such a compromise adjustment: members are then often both investors and consumers, and the one-vote rule divorces the influence of each member from the extent of his special interest as an investor or purchaser.

Summary and Conclusions

It has been argued here that the social value of certain consumer coöperatives arises from the effects of their price policies upon resource allocation. The coöperatives which advance the general economic welfare are those which seek to maximize net consumers' surplus and thus incidentally eliminate any "monopoly gap" which might otherwise be presumed to exist. Coöperatives which attempt to maximize profits in the same way as any other business enterprise have no special claim upon public sympathy. This distinction in pricing objectives, if ascertainable, might provide governments with a test for deciding whether to extend or withhold certain aids.

In the past advocates of coöperation have not always based their case on the strongest possible grounds. Often they have pleaded lower prices after rebate because of superior business efficiency. The low level of costs often achieved has, however, too frequently been the result of tax exemption, services donated by members, inconvenient location and hours, absence of delivery and credit facilities, concentration on certain main lines of goods, and the like. In most of these circumstances the only advantage of a coöperative over a regular business is the greater willingness of the patrons to accept poor service. In terms of real economic cost there appear to be no general reasons for supposing that a coöperative is more efficient than a private distributor. If a consumer coöperative does charge lower prices than its approximate rivals, the cause is less likely to be differences in costs than a rare willingness to pass on potential monopoly profits.³²

The analysis of the preceding sections would seem to indicate that a far more potent and possibly scientific case can now be made for consumer coöperatives than has previously been advanced. Moreover, it can be set forth in terms of resource allocation and hence at an unusually fundamental level.

³¹ For any given output, assuming long-run or ignoring fixed costs, the financial profits are the area below the marginal revenue curve minus the area below the marginal cost curve, while the consumers' surplus is the area below the demand curve minus the area below the marginal revenue curve. Thus the joint financial profits *cum* consumers' surplus is the area below the demand curve minus the area below the marginal cost curve, for the algebraic addition of these two *quanta* eliminates the marginal revenue term. This combined element will therefore be maximized by an output for which the incremental costs and demand price are equal at the margin.

³² This paragraph is not intended to deny the many worth-while contributions of consumer coöperation. Coöp stores are in a somewhat better position than the ordinary consumer to judge the quality of different brands and lines of goods. If they are large enough they may do their own testing and order goods according to their own specifications. Occasionally coöperation provides an accidental mitigation of a monopoly situation.

Further exploration of the somewhat novel approach presented here might lead to greater government support of genuine⁸³ consumer coöperatives after the war.⁸⁴

STEPHEN ENKE

*University of California
Los Angeles*

New England Mutual Savings Bank Laws as Interstate Barriers to the Flow of Capital

I

Much has been written in recent years about state laws and administrative regulations that have caused state boundaries to become significant in an economic sense. Attention has, for the most part, centered upon those particular laws and regulations that have acted as trade barriers; little has been said about those that have lessened factor mobility, particularly that of capital. Savings, before actual investment in capital goods, are highly mobile. As a result, lower taxes, gifts of land for factory locations, anti-labor policies, etc., are practices adopted by areas attempting to attract capital saved elsewhere. Conversely, there have been legislative efforts in states that normally export capital to hinder its emigration. The most important of these have had to do with savings accumulated through mutual savings banks; in some states these laws have been generalized to include investments made by trust companies and certain other financial institutions under state jurisdiction. Unlike state trade barriers, which are a comparatively recent phenomenon, these impediments upon capital mobility are old and well established. Although they were of more consequence relative to the size and wealth of the United States forty years ago than they are now, they still cause distortions in the geographical location of the investment of savings accumulated through savings banks.

In most of the seventeen states in which mutual savings banks are located, the legislatures have prescribed the operating procedures which they are to follow in considerable detail, including two types of investment restrictions. The first is designed to protect the depositor from loss. Those falling under this classification not only limit the fields of investment to those that the legislators considered to be least speculative at the time of enactment but also include detailed credit tests which must be met by borrowers in the approved fields before the securities they have issued are legally approved for savings bank investment. The New York law has the best provisions of this type although somewhat similar ones are also found in those of most other mutual savings bank states, including New England.

The second type of restriction has been designed to aid borrowers within a state (or regional group of states) rather than the depositors. These have been, and remain, characteristic of the New England laws. There are three methods

⁸³ I.e., coöperatives which follow the price policies recommended here.

⁸⁴ The desirability of producer coöperatives is another story.

by which emigration of capital accumulated in savings banks (and other state chartered institutions subject to the same restrictions) is hindered: (1) by approving certain fields of investment only if the borrower is located within the state, (2) by legally permitting loans to borrowers in the state with substantially poorer credit than if they resided outside of the state, (3) by taxing investments made by the banks outside of the state while waiving the tax on investments made within the state.

II

The founders of American mutual savings banks were inspired by the success of English savings banks in providing the thrifty poor with safe agencies to keep their surplus funds. The previous absence of institutions to perform this function had greatly aggravated the problem of poverty. A group of philanthropic Bostonians organized the Provident Institution for Savings in that city late in 1816. Its charter contained no restriction upon the investment of its deposits except that they were to be "used and improved to the best advantage." Later New England savings banks were modeled upon this pioneer and they likewise were not limited by charter restrictions in their choice of investments. This was in sharp contrast to New York practice.

For the first fifty years of their existence, American savings banks were informal enterprises conducted somewhat like our present-day credit unions. They were looked upon as philanthropies and highly respected business men contributed their services as trustees. Their combined assets were of insufficient size to attract many "pressure groups" wishing legislation to modify investment practices in such a way that they might benefit.

Conditions changed markedly during the second half of the century. Probably the principal cause for the emergence of savings banks as major financial institutions was the acceleration of industrialization in New England during the Civil War period. This sharply increased the number and income of wage and salary workers with the result that the deposits of the savings banks grew at a surprising rate. By the third quarter of the nineteenth century the savings banks had, as a general rule, lost much of their early philanthropic character. In many instances they were, for practical purposes, savings departments of national banks. However, the state continued to exercise a strong interest in the way in which they conducted their affairs. One aspect of this interest was the adoption of a policy to hinder the exportation of savings bank funds to areas outside the state where interest rates were higher.

Between 1870 and 1910 there was almost continuous agitation in the New England states for the adoption of legal means to stem the outward flow of capital. It was argued that investments within the state should be given a marked preference and, occasionally, those within New England a lesser preference. Since savings banks (and trust companies) were the only investors whose actions could be easily controlled by the state, this argument was limited to ways in which savings banks could be induced to invest a greater portion of their deposits within the state. The difficulties encountered by the advocates of capital retention did not arise from objections made by advocates of free trade in capital, rather they rose from the fear that their policy, if

pushed far enough, would either deprive banks of the opportunity to make safe investments or force them to make so many risky investments that failures would increase. There has been little discussion of the question since 1910, but the measures that were in effect at that time have remained although often in a modified form.

Among the reasons given for hindering capital export were to develop resources, to aid manufacturing, to provide farmers with cheaper capital, and to provide jobs for the class of people for whom the banks were established.

The most common early attempt to hinder out-of-state investment was to define investments that could be made legally in such a way that, with some exceptions, the borrower had to be a resident of the state. This policy ordinarily did not apply to United States government bonds and a few out-of-state municipal and state obligations because it was recognized that the banks needed some liquid assets.

With the passage of time these hindrances have been eased considerably. There have been two reasons for this: (1) the phenomenal growth of savings deposits created a situation in which the banks were unable to invest their funds suitably unless the list of eligible investments was enlarged; (2) the development of a technique of differential taxation of bank assets which did not possess the disadvantages of the earlier procedure of defining eligible investments. However, many of these earlier restrictions remain. For example, the present Massachusetts law permits real estate loans only upon property within the state, personal loans only to citizens of Massachusetts, and the purchase of stock of only those banks incorporated by the state. Similar illustrations could be given for each of the five other New England states.

In many instances the rigor of these restrictions has been lessened by adding out-of-state (or New England) investments providing that the borrower has excellent credit, whereas a domestic borrower does not legally have to be such a good risk. For instance, in general the bonds of any New England municipal body may be legally purchased but the bonds of non-New England bodies can be bought only if they are able to meet a number of credit tests. Another illustration (although not one that is now very important) is found in the provision of the Maine law that permits a savings bank to buy the bonds of any railroad incorporated and operating largely in Maine providing only that it is 500 miles in length. Bonds of railroads elsewhere may be purchased only if they are able to meet a large number of specifications designed to eliminate poor risks.

Commercial banks have been taxed in New England since Colonial days and savings banks since the Civil War. Prior to 1893 the savings bank tax was levied on either the total deposits or the total deposits plus guaranty fund. In that year Maine altered the principal purpose of its tax from that of raising revenue to that of encouraging the banks to make investments within the state. The other New England states were not long in adopting the same policy, although the modifications each made in its savings bank tax law were different in both degree and extent from those made by its neighbors. Under the present procedure part or all of the investments within the state are deducted from the tax base before computation. The most common tax

rate is $\frac{1}{2}$ per cent which means that an exempted investment yielding $3\frac{1}{2}$ per cent is, other things being equal, as attractive as a 4 per cent out-of-state investment. The effectiveness of this tax depends in part upon the general level of interest rates because a levy of $\frac{1}{2}$ per cent on assets representing out-of-state investments is much more severe when interest rates are relatively low than when they are relatively high.

III

Although little has been written regarding the economic effects of interstate hindrances to the free flow of capital, it has been demonstrated repeatedly that the general international welfare is maximized by the free flow of capital. Despite the fact that this principle has long been accepted by economists, it has not formed the basis for policy by the men charged with governmental administration in any important country. Professor Viner has shown¹ that the governments of all nations that have exported large amounts of capital have had serious misgivings as to its wisdom. Therefore, the governments of the New England states have not been unique in their attitudes.

The argument for international free trade in capital is applicable to the various states of the United States. It holds that the lending country gains not only the higher rate of interest it receives, which is the immediate incentive to choosing a foreign rather than a domestic investment, but the foreign country is able to increase its income by the use of this capital so that it becomes a better market and also a more efficient (cheaper) source of foods and raw materials. However, this argument generally glosses over rigid prices, business cycles, and other causes of under-employment of resources in the capital accumulating country by tacitly assuming full employment. In recent years the desirability (to the exporting country) of exporting capital under all circumstances has been questioned. The basis for this view is that domestic investment provides a substantial amount of secondary employment which does not exist in the case of foreign investment. If there is extensive unemployment, this secondary employment will provide jobs that would not otherwise exist. It is true that the capitalists will receive lower incomes, but it can be argued that the increased income to labor will more than offset this loss. It is interesting that the objections to the exportation of capital from New England to other states were greatest in periods of under-employment. This reasoning, if applied to the states of the United States, implies an undesirable lack of interest in the national welfare. Also it tacitly assumes a considerably greater degree of immobility of labor than exists between states.

By and large mutual savings banks' deposits have come from the lower income groups. Obviously depositors have lost investment income because of the impediments to more profitable out-of-state investment. There is the further question of the effect upon wage income. The retention of capital, *ceteris paribus*, tends to raise labor's share of the product because labor becomes relatively more scarce than capital. This argument was often advanced in the form that capital should be retained in the state to provide employment

¹ J. Viner, "Political Aspects of International Finance," *Jour. of Bus.*, April, 1938, pp. 144-146.

opportunities for youth at home. Actually whatever tendency there might have been toward relatively high wages was probably dissipated in an increase in the labor force. The principal beneficiaries have not been the lower income groups but the owners of those factors which did not increase with capital accretion. In addition to such geographically fixed factors as land sites, these include many types of businesses characterized by strong monopolistic elements that are able to retain their approximate position as the community grows. Examples are department stores, newspapers, and commercial banks.

There is no question about the fact that New England municipal bodies have been (and still are) able to borrow for less because of the preferences for local investments. This has reduced property taxes and increased property values, results which have been of little benefit to the lower income groups. Thus, to some extent, public improvements in New England have been financed by lowering savings bank dividends to depositors.

WESLEY C. BALLAINE

University of Oregon

BOOK REVIEWS

Economic Theory; General Works

The Theory of Economic Progress. By C. E. AYRES. (Chapel Hill: Univ. of North Carolina Press. 1944. Pp. x, 317. \$3.00.)

Although he reminds us in his Preface of Stephen Leacock's warning, "there is no such thing as a book on economics for reading in a hammock," Professor Ayres has written a very readable book. *The Theory of Economic Progress* not only has an intriguing title, but is written in a lively manner, is full of interesting allusions, touches on most of the important problems of the day, and in its final judgments generally comes down on the side of the progressive and the humane. It is likely to be widely read and it has already made a strong and favorable impression on such good men as Alexander Meiklejohn and John Dewey.

Beginning with a recognition of the failure of the institutional school to direct economics down a new road, this book tries to do the same thing. Where all previous attempts have failed, Professor Ayres hopes to succeed by forging a synthesis of Thorstein Veblen and John Dewey. Professor Ayres believes that price theory is essentially nothing but an instrument for the partisan justification of the capitalist form of society and does not like the extreme preoccupation of current economics with the individual. He lays great stress on approaching the economy as a working whole rather than through the individuals that comprise it, and thinks he has found a key in the concept of Progress. He is aware of the superstitious penumbra of the notion of (inevitably inevitable) Progress, but thinks he has purified it by an ingenious redefinition on the lines of Dewey's philosophy.

Economists, however, will not like the book. This is because, in order to be impressed with it as a "new way of thinking about economic problems," there is a special but not very rare prerequisite that must be satisfied: The reader must possess a fairly complete ignorance of economics. While all readers will enjoy the way in which Professor Ayres shows himself no mean disciple of Veblen in his application of satirical anthropology to our own civilization, only those who satisfy this additional requirement will fail to be disturbed by the misinterpretations and the mistakes that abound in his presentation of current economic theory. The economist, instead of being impressed, or even amused, is likely to think sadly of the effect on a professor of institutionalist economics of having to feed a demolished economic theory daily to a horde of hungry sophomores.

Only such a pressure for continuous iconoclasm can explain, for instance,

the assertion that Gresham's law "is plainly false," because "what drives out good money is not bad money but worsening money" (p. 31), or the emphatic rejection of any connection of "time preference" with saving habits on the grounds of an alleged dependence of this relationship on an alleged excess of short-term interest rates above long-term interest rates (p. 51). And only a very similar drive for conspicuous contradiction can explain the very strong language used. Thus in his discussion of the period of production and its relation to capital (where he commits the elementary error of confusing the average period of production, which is always longer in more capitalistic processes, with the time taken by the final stage of the process, which is frequently shorter), he declares that "the fatuity of the argument is so extreme that it would be apparent to the most elementary student if he could escape the atmosphere of intimidation in which such instruction commonly proceeds." One can imagine the feeling of superiority that Professor Ayres's undergraduates must have over the poor students in other colleges—to say nothing of their superiority over the economists who invent or teach such "fatuities."

Perhaps most depressing of all is the uneasiness that Professor Ayres betrays about his cavalier treatment of economic theories, when he tries to cover himself by some hedging phrases and by facetious anticipations of the criticisms to which he exposes himself.

The reason for these extravagances, which cannot all be attributed to a desire to amuse the students of the University of Texas, lies in his unfortunate identification of economic theory with certain apologists for the capitalist *status quo*. Professor Ayres's belligerence, however, is only the result of a quite unnecessary surrender of the field of economic theory to the reactionary enemy.

The issue finds its first expression in an almost neurotic phobia for price analysis, which makes him resentful of economists' "obsession with prices." What really annoys Professor Ayres, and this annoyance must be shared by all progressive and humane observers of the social scene, is the suggestion that the price mechanism of the existing capitalist world results in a *just* distribution of the social dividend.

It is true that John Bates Clark did declare the distribution resulting from competition to be "just." He did this by calling the marginal product, which is what each factor tends to be paid under perfect competition, the "contribution" of the factor, and by assuming first that his "contribution" in this special sense is what each member of society is justly *entitled* to have as his share of the total product of society, and, second, that the *owner* of any piece of property could be considered as "contributing" the marginal product of the property he owned.

The proper procedure, which is now followed by all economists of repute, is to point out that these last two propositions are scientifically baseless and morally very questionable, so that the whole of this form of apologia falls to the ground. There is no need whatever to reject price theory because of its misuse by John Bates Clark and a few others. Only antitheoretical institutional economists can be tricked into so unfortunate a position.

It is now becoming more and more obvious that the development of economic theory is by no means an instrument to be left in the hands of the propagators of a purely capitalist or private enterprise economy. Pure economic theory is not even as suitable as was once thought for the explanation of the existing capitalist economies, because these deviate more and more from the perfectly competitive free enterprise model. Its greatest use in the future belongs to the socialists rather than to the capitalists, since it is only the socialists who can plan to use the price mechanism for their purposes. One of their chief tasks is to develop those institutions which would enable the price system to minister to the needs and wishes of the people the way it is supposed to in a perfectly competitive free enterprise system. The socialists are not limited to operating with the institutions of a capitalist society. They can also change them.¹

The dangers in Professor Ayres's surrender of price theory to the reactionaries could not be more clearly illustrated than in an exchange in the *Saturday Review of Literature* between John Dewey and Mr. Hazlitt, who reviewed the *Theory of Economic Progress* in that journal. It was very sad to see the great philosopher and educator betrayed into an untenable position in attempting to defend Professor Ayres against the reviewer's fierce but merited condemnation.

Professor Ayres's philosophical bent shows itself in a prolonged discussion of value. This is closely tied to his rejection of price theory. In economics the word "value" is used to indicate the rate at which goods exchange for each other in the market, and this can be measured in a monetary economy by the ratio between their prices. In philosophy and ethics, the word "value" refers to the morally significant ideals of individual or social behavior. Professor Ayres builds up a magnificent structure on the basis of an obstinate identification of the two words—presumably because they have the same spelling, the same sound, and perhaps a related etymology.

The price relationships in the existing capitalist world play an important part in determining the outputs of the various goods and services that make up the national income. Professor Ayres rejects, quite properly, the suggestion that this result must be accepted as the best of all possible worlds, but he quite unnecessarily denies the usefulness of price theory and of the price mechanism for purposes other than justifying the *status quo*. He forces himself into this unhappy position by refusing to speak of values in the sense of relative prices without attributing to the word the other meaning of moral justification. Refusing to accept the moral justification of capitalist apologetics, he denies himself the tool of value analysis and tries to console himself by metaphysical speculation about the impossibility of proving that prices are of the "essence" of our economy.

¹ In this discussion the word "socialist" is used in a very wide sense, excluding only those who are hypnotized by an overpowering awe of the automatic working of the purely *laissez-faire* economy into restricting governmental action to a few traditional police powers. Everyone else is prepared to use governmental action whenever a reasonable case can be made out to show that it would be in the general interest. This is the sense in which "we are all socialists now," except for some diehard business men in the United States of America.

There are many ways in which the same surrender of economic theory to the reactionaries shows itself, and if there are no reactionaries now to be found to whom the theory is to be surrendered, they have to be invented. Only this can explain Professor Ayres's insistence that the metaphorical phrases of Adam Smith and other classical economists about how the economy works "as if by an invisible hand" really reflect a Naturalistic Deism; that when Adam Smith said "as if by an invisible hand" he really meant not "as if" but strictly by an active deity modestly called "Nature." And not only Adam Smith. Anyone else who defiles himself by the acceptance of some part of price theory is tainted with similar superstitions. To such lengths are we led by belligerent purism!

The apogee of the whole structure is to be found in Professor Ayres's theory of Progress. While fleeing Value, in the sense of price relationships, because of its contamination by capitalist apologists, he nevertheless feels that some sort of Value must be accepted if the universe is to have Meaning, and he believes that the universe must have Meaning in this sense. He is led in this way to the strange definition of value as "continuity." "'Value' means continuity, literally; and that is its sole meaning. If anyone doubts this, let him try the simple experiment of substituting the word 'continuity' for 'value' in as many situations as he can" (pp. 221-222).

This strange verbal manipulation is necessary because Professor Ayres embraces "Progress" as the key to the universe. He violently opposes the common acceptance of consumption as the end of economic behavior, pointing out that such an acceptance is strictly unscientific. Science recognizes no "end." Consumption does not mean that the economy comes to an *end*. To say that all production is for the purpose of consumption is not true. Some production is for the sake of profit. Nor can it be denied that consumption is often a prerequisite for the health of the producer, and so is a *means* to enable him to produce in the future.

The trouble here lies in the failure to distinguish between the rôle of the observer outside our economy, and the rôle of the political animal who is part of it. For the observer there is no "end" in our economic behavior, but only a continuing process, which he may perhaps try to "explain." The political animal, however, does himself have "ends," such as improving the welfare of the population, or increasing their consumption or providing them with social security, and is interested in existing and in potential instruments for bringing about these ends.

Professor Ayres denies the primacy of consumption because he wants to adopt the "scientific" approach, but whether it is because he has at the back of his mind the humanistic or political approach, or whether he feels some metaphysical need for an absolute to take the place of the Naturalistic Deism that he attributes to Adam Smith, he feels constrained to adopt another guiding principle. For this he adopts the principle of Progress.

This lands him in an extremely unwholesome position. He has to say that there is a Purpose in the economy and that this Purpose is "to keep the machines running." In his great eagerness to avoid the judgment that "what is is right," he runs straight into the same error in a higher degree, saying in effect that "what is going to be will be right."

Toward the end of an extremely interesting chapter of economic history, showing how the techniques of production, "tools," seem to generate continuous change or progress in their development, Professor Ayres acknowledges that "some students of the social sciences hesitate to identify technological development with progress" (p. 121-122). But he believes he has overcome the basis for this hesitation by pointing out that progress does not necessarily mean movement toward some final ideal goal. He fails to see that the removal of this greater superstition leaves untouched the remaining unwarranted belief, itself quite serious, that there is always change for the better. (The other hesitation that students have about a "law" of progress because of the observation of long periods in which there is no technological improvement is overcome by the astonishingly "classical" argument that this only "means that other forces are at work, not that technological progress is an illusion" [p. 121]. Shades of *ceteris paribus*!)

Professor Ayres does not of course really believe in any such fatalistic transcendentalism. There is a chapter on the Strategy of Progress which shows quite clearly, as indeed does the whole spirit of the book, that his sympathies are with the underdog and with such changes in the constitution of our society as will give him security and a good life. But the attempt to develop a theory which would reconcile neutral scientific observation with active political participation has a unique result.

Fundamentally, the book is an attempt to liberate the humanistic forces for change in our society from the absolutism of an allegedly reactionary economic theory. But the result is an absolutist theory of faith in Progress through the automatic development of the economic machine. In his frantic efforts to escape the imaginary theology of Naturalistic Deism behind the "invisible hand," Professor Ayres, in his "Law of Progress" comes up with a *deus ex machina* in the most literal sense. Fortunately his practice is better than his theory.

Economists are overly fond of the metaphor of throwing the baby out with the bath water. That analogy exactly fits what Professor Ayres does in rejecting the use of price theory because he objects to the perversions perpetrated by such writers as John Bates Clark. But in the main theoretical argument of the book, in installing the principle of Progress in place of the recognition of human needs as the guide to action, he has achieved the more distinguished result of throwing out the baby while retaining the dirty transcendental bath water.

ABBA P. LERNER

*The Graduate Faculty of Political and Social Science,
The New School for Social Research*

The Ideal Foundations of Economic Thought—Three Essays on the Philosophy of Economics. By W. STARK. (New York: Oxford Univ. Press. 1944. Pp. viii, 219. \$3.50.)

This book gives, in narrative form, a series of quotations from Locke and Leibniz, Thomas Hodgskin and William Thompson, Hermann Gossen and

Richard Jennings. These quotations mainly concern the problem of the order that ought to be *versus* the arrangement that actually exists, with reference in particular to private property, individualism and collectivism, liberty and equality. The author generally reserves his own explicit judgment until the end of the book. There he states it freely and unambiguously:

Social justice, assuredly, will ever be imperfect: but so is all justice: so is all that is human. We may be unable to create perfect equality of enjoyment: but we are able to grant equal chances of happiness. This must be enough. Who will argue that we should not approach the ideal because we are unlikely ever fully to attain it?

In the last analysis, then, the decision between the social and ethical approach of the classical, and the individualist and scientific approach of the modern, economists depends upon the question whether it be desirable or even possible to divide the search for the true from the quest of the good. To me it seems that the vital link between them should not be severed: that the great mission of human meditation is only fulfilled when either task is accomplished. For of all creatures which we know, man alone has the privilege, and the duty, to raise his face towards that Infinite Perfection, in whose image he has been formed (pp. 211-212).

The book is published in the series of the International Library of Sociology and Social Reconstruction under the general editorship of Karl Mannheim. It also has its place in the general flow of publications that are concerned with the very fundamentals of our economic system and social order, and to which many prominent economists have recently made substantial contributions. This fundamentalist economics can supply a response to our time of crisis, catastrophe, and accelerated change that is beyond the range of ordinary technical economics.

Dr. Stark is very skillful in weaving the thoughts of the three pairs of authors mentioned above around the red thread of the basic idea of social justice, order, and harmony. It is no mean achievement to make two hundred pages of quoted passages read like a systematic and internally progressing treatise. The selection and arrangement of the quotations are good, the interpolation of the connecting text is admirable, and the argument moves on a respectable level throughout.

It is not quite clear to what group of readers the author primarily wants to address himself. He does not supply introductions to the men and works he deals with. Thus, only the initiated and professionals can really appreciate the value of the selections. These readers, however, will probably prefer the study of the originals in their full length. Beginners, on the other hand, will have to take Dr. Stark on trust most of the time, including those occasions where his characterizations deviate from those traditionally given in the standard books on the history of economic thought. It would have been helpful to make explicit the reasons which induced the author to consider the six chosen men as more representative than scores of others. To many readers three or four of them may just be names—if that. The tagging of Thomas Hodgskin as the proponent of the "Libertarian Alternative" (p. 52) at the

Crossroads of Liberalism and Socialism (p. 51) would seem to require a few words of explanatory comment.

Now and then the argument seems to traverse long distances of empty space. The section on "The Order Divine" (p. 26) opens with the following quotation from Leibniz's *Monadology*:

How are we to interpret the relation of whole and parts so that the continuity or complete unity of the whole shall not be in conflict with the definiteness or real diversity of the parts? To say that the whole is continuous or really one, seems to mean that, if it is divisible at all, it is infinitely divisible. If it were not infinitely divisible, it would consist of insoluble ultimate elements, and would thus be discontinuous. Accordingly, if the whole be really continuous there seem to be no fixed boundaries or lines of division within it, that is to say, no real, but only arbitrary parts. On the other hand, if the whole consists of real parts and not merely possible subdivisions, these parts must be definite, bounded, separate from one another, and consequently the whole which they constitute must be, not a real continuous unity, but a mere collection or arbitrary unity. Nevertheless, we cannot hold either that the whole is real and the parts unreal, or that the parts are real and the whole unreal (p. 26).

Dr. Stark assures us that

This technical and therefore esoteric language does more to conceal than to reveal the true character and importance of Leibniz's thought. For behind the formal problem of the relation between the continuum and its points, between whole and parts, lies hidden the material problem of the relation between the universe and its elements, between society and individuals. His sober mathematics contains a deep cosmology and sociology. How does it come about that the independent units of physical and social reality combine to form an ordered system, if the units are really independent, *i.e.*, more than unfree organs of the whole, and the system is really ordered, *i.e.*, more than a mere sum of the parts? This is the question to which Leibniz sought an answer (p. 27).

But the relationship between the metaphysical order and the social order appears mainly as a mere analogy and the revelant connections are not analyzed.

Out of the wealth of interesting sidelights which illuminate the main texts, one passage may be singled out here. Hermann Gossen, that Prussian bureaucrat, a century ago, did write:

All that exists must itself create the means of its further existence, otherwise it does not deserve further to exist. Even church, art, and science only deserve to exist if the achievements of the persons belonging to these professions are so highly paid on the free market that they yield incomes of adequate size without additions out of funds held by a legal person (p. 187 fn).

And he meant it.

Theory of National Economic Planning. By CARL LANDAUER. (Berkeley: Univ. of California Press. 1944. Pp. 189. \$2.00.)

"What form and degree of social control must be established as a remedy for the most irrational feature of the present system, economic instability?" This is the large question that Professor Landauer raises on the first page and investigates in the later pages of this small book. His further treatment of this question, even more than his statement of it, makes clear his belief that the "form and degree of social control" needed for this purpose can and should stop short of abandoning "the present system" for a socialistic one. Although he acknowledges the value of pioneering work in socialistic economic planning by such writers as Pigou, Dickinson, and Lange, and employs some of the measuring devices they have developed, his own theory is a rationale of transition from an unplanned economy to one that is planned, private ownership and operation of productive enterprise remaining constant. As a final rejection of socialism, the author argues in a vigorous concluding chapter that economic planning is not only compatible with political democracy, but is a positive way of maintaining it and keeping it strong.

After a brief demonstration of the failure of the price system to reflect accurately the future conditions of demand and supply on the basis of which entrepreneurs decide to make (or not to make) commitments, Professor Landauer presents the considerations from which his theory of planning is to proceed. These are (1) an inventory of resources, and (2) a schedule of consumer preferences. The first of these, a list of definitely limited factors, concerns matters of fact; the second, a list of indefinitely expansible wants, involves estimates. Given a complex of productive resources, Professor Landauer seeks a method of calculating and testing the relative desirabilities of the various commodities that can be produced. With such a method, it becomes possible for a planning board to apply the limited productive resources to produce the desired commodities in appropriate proportions and to plan their appropriate price relations.

This is, I believe, the weakest point in a brilliant analysis of systematic planning. A recognized requirement for any kind of planned economy is that the planning body anticipate, as exactly as can be, the amounts of some (or of many, or of all) commodities that people will buy when the price of each commodity bears a given relationship to the prices of all other commodities. Professor Landauer asserts that their several "utilities" can and should be calculated in advance, and these calculations used as a means of knowing how best to allocate resources. My first objection to this argument is that it gives an unwarranted semblance of exactness to a procedure that at its best is only (especially in the period of transition from an unplanned to a planned economy) a matter of making educated guesses. What we know now about consumer preferences is derived from budgetary studies in a system that is unplanned as to production or prices. And, even if we knew enough to anticipate consumer preferences with mathematical accuracy, the contention of Hayek that the attendant volume of simultaneous equations would be too large for facile treatment by existing mathematical methods seems to have a

bearing on the case even after Professor Landauer has rejected it. It even appears that he has fallen in with some other recent writers in making a loose and improper use of the concept of utility. It is, for its appropriate purposes, a useful concept; it refers to the intensity of the desire of a person for a commodity as expressed through willingness to pay a price for some quantity of it. But what we know quantitatively about utility comes only after a price has been paid (or not paid). We may in some cases anticipate with some certainty that lowering the price of a commodity will, other things remaining equal, be accompanied by an increase in the amount purchased. But such certainty refers to a functional relationship of demand and price rather than to any calculation of utility.

My second objection has to do with the large volume of resources that must be allocated, in either a planned or an unplanned economy, without regard to consumer preferences as expressed by willingness to pay prices. In planning the community's education, for example, a decision to employ more teachers, or better teachers, or teachers with longer or more expensive training, is a decision to use resources for educational purposes instead of for other, alternative, purposes. The element of price preference is obscured in this case, as it also is in the numerous and complex situations which, to use the nomenclature of Pigou, are affected with "social value" and "social cost." Many of us expect these considerations to occupy an important place among those to be taken account of by economic planning. So, let me hasten to add, does Professor Landauer; his view of the purposes and effects of economic planning is much too broad to leave these considerations out of account. He discusses them in a part of a chapter entitled "Noneconomic Functions and Purposes of Economic Planning." My objection is directed exclusively to the categorical proposition that resources can be allocated according to anticipations of consumer preferences as expressed by willingness to pay prices.

Professor Landauer takes the step from the planning of resource use according to advance estimates of consumer preferences to the systematic planning of prices with impeccable logical finesse. Since the price relations which he advocates are those which will give consumers the highest degree of satisfaction compatible with economical use of resources, it is recognized that the satisfaction of producers with the established prices must also be assured. The inducement proposed for gaining voluntary compliance by producers is the basic one of offering them profitable opportunities. In addition to devices to encourage efficiency and to induce producers to reduce their prices below the assumed levels, Professor Landauer follows Ezekiel in proposing the guarantee of sales by the government under contracts with each firm. By this means the government would secure voluntary compliance to a program for expanding output. The plan that is proposed here would go beyond that of Ezekiel in that the government would assume over longer periods of time a share of the risk attendant upon capital investment to expand output.

The advantages of a planned economy to business enterprise, in the way of increasing assurance of profit and reducing probability of business errors, would lead, Professor Landauer believes, to wide acceptance of the plan. Yet he recognizes situations in which entrepreneurs would reject proposals for

expansion. In such a case, the entrepreneur would not receive any guarantee of sales. It is recommended that compulsion in such cases should remain a rare exception, to be applied only when the effect of noncompliance is clearly monopolistic. While opposing automatic sanctions in any case, Professor Landauer proposes that the planning board deal with such non-coöperative seizures of monopoly power by creating new enterprises as competitors to existing firms that refuse to expand. The accompanying waste would be counted as part of the cost of executing the plan.

The author includes in his plan the freedom to own, the freedom to consume and the freedom to strike, resting each of these freedoms upon substantial grounds. As regards free choice of occupation, he recommends offering inducements to people to enter vocations in which their services are especially needed, and deterring them from entering those in which they are not needed, by the rates of compensation that are offered. For those occupations which might become overcrowded in spite of low compensation, he advocates restricted admission to schooling and severe examinations. In one of the most interesting technical passages in the book, Professor Landauer discusses the freedom to save and the use of rates of interest, taxes, and deficit spending to avert both over-and under-saving. Whatever propensity to save the community has would be kept consonant with the need for capital by policies and devices of the planning board.

Professor Landauer's chapter on "National Planning and International Relations" reaffirms and strengthens the classical arguments as to the advantages to be gained from commerce among nations. His contention is that these advantages can be seen clearly by the nationals of any country in a framework of national economic planning, and cannot be seen clearly by them under conditions of *laissez faire*. "Because unplanned capitalism overemphasizes the seller's point of view, even the propagandist genius of Cobden and Bright could obtain only a temporary success. Because an economic plan makes it perfectly clear that we have scarcity of resources and not of opportunity to use them, it makes possible a policy which calculates the cost of any privilege that any group of producers may demand and thereby greatly decreases the probability that any such privilege will be granted" (p. 128). Professor Landauer's own thesis is that "the economic welfare of a country depends on opportunities for consuming and not for selling" (p. 126).

For the position that many students of international affairs have now reached (e.g., Herbert Feis, *The Sineews of Peace*), that greatly increased power to consume on the part of the masses of people in all countries is a *sine qua non* to the maintenance of both liberal institutions and peace, this book offers a sturdy support. The entire work is devoted to the demonstration of how consumption power can be expanded by national planning, and the chapter under discussion extends this principle to the international sphere.

This work is touched with wisdom as well as with technical finesse. Many of the comments which relate to the main argument as asides do to a dialogue are almost startlingly provocative. This is especially marked in Professor Landauer's acknowledgments that national economic planning, in attacking basic economic problems, does not solve all problems and does, indeed, raise

new ones. For example, he points out that a planned system will create a need for protective devices to safeguard minority interests (pp. 19-20), that agencies of public opinion must have special and explicit legal rights as against a planning board (pp. 71-72), and, with regard to the concentration of industry into large units, he warns that "there is no likelihood that the concentration process will be slowed down in a planned economy" (p. 63).

Given the qualities named above, the great merit of this little book lies in its breadth of treatment of its large problem. Professor Landauer is not an inventor of "gadgets," nor does he believe that the requirements of economic planning are met by the administrative manipulation of any single economic magnitude or flow. He does not answer all questions, but he does outline objectives and lines of procedure. In economic theory there may be no final answers; there is only method. Professor Landauer's book well justifies its title.

HORACE TAYLOR

Columbia University

National Economies

Argentine Riddle. By FELIX J. WEIL. (New York: John Day, in coöperation with the Latin Am. Econ. Inst., 1944. Pp. xiii, 297. \$3.50.)

This is one of the most solid books on any South American country, written by an extraordinarily well informed author who excels in statistics. It is extremely interesting for those who are also informed and in a position to criticize, but not without dangers for those who are not in this position.

For those who have seen the same powers and slogans at work in European countries and who can recognize them overseas, there is not much of a riddle in Argentina. Isolationism and protectionism of nations and of groups inside the nations have spread over the seas and created the conditions which we now find in various Latin American countries. We know whereto they lead. They are not too much discouraged by the trend of this book.

The Argentine problem is no longer whether "to industrialize or to remain agrarian." That is settled. Only few countries have made so much industrial progress in so short a time. In the few years from 1935 to 1940 the number of industrial establishments has increased by 43 per cent (p. 272), the production values by 150 per cent (from 3.3 to 7.8 billion pesos), that is, ten times as much as the agrarian production values (15 per cent, from 2.9 to 3.3 billions). The industrial population more than doubled in the period 1914 to 1940 (from 1.2 to 2.7 millions) and surpasses substantially the agricultural population, which increased only from 0.88 to 1.05 millions¹ (p. 233). Dr. Weil does not agree with these estimates, but his own tables (p. 263, 265) show from 1914 to 1937 an increase of the industrial personnel from 0.38 to 0.8 and a decrease of the whole agrarian population from 2.12 to

¹Alejandro E. Bunge, *Argentina Fabril*, Jan., 1940, p. 165.

2 millions. Incidentally, the development of service trades is even more significant for a modern country.² The persons engaged in the Argentine service industries including commerce increased from 1.1 millions in 1914 to 1.9 millions in 1940.

These figures show definitely that the agrarian character of Argentine economy has already changed. They deprive the recurring theme of the book of its resonance. It should not any longer be considered as a "paradox that Argentina happens to be a competitor of U. S. industry in the supply of goods to other Latin American countries" (p. 152). This competition will have to be reckoned with. Argentine competition may have to be met in the near future, not only in agrarian but also in industrial products; not only in prices³ but also in other selling conditions; not only in Latin American but also in other countries. Argentine industry may replace German industry here and there, on the basis of purely commercial developments. In order to do that, it does not need to rely on totalitarian methods. Backed by such methods it would, of course, become objectionable.

Industrialization alone is no remedy for all evils. Neither is it an answer to all questions to attribute every evil to the diabolic influence of two scapegoats, ambitious, but stupid, big landowners (pp. 90, 119, 192) and "badly" behaving foreign capital (pp. 112, 124, 210). The accusation, for instance, that both have intentionally hampered the development of highways is far from convincing. In spite of the difficulties in a country where human dwellings are often hundreds of miles apart, more than 40,000 miles of new roads have been constructed in the last 12 years at an expense of more than one billion pesos.⁴ Of course much more could be done, especially by encouraging the importation of motor cars,⁵ instead of hampering it by a short-sighted tariff policy. But, as to commercial policy, the guilt lies not exclusively with Argentina. This can be seen clearly in the excellent chapter on the meat problem (p. 195).

To see the roots of all economic and social dangers in the power of the land gentry, as the author obviously does, is somewhat dated. The gentry no longer rules the bureaucracy, but the bureaucracy—with laws if possible, and with weapons if necessary—rules the gentry as well as other groups of the people. It does not hesitate to restrict commerce or industry or agriculture, export or import, when it considers such restraint consistent with its concepts.⁶ The young and eager Argentine bureaucracy has learned that, equipped with a few modern theories and with the modern state mechanism, it is easy to rule a whole country, and very tempting too.

² C. Hartley Gratton, *Harper's Magazine*, Sept., 1944, p. 301.—Compare the figures for the United States: 11 millions engaged in agriculture and mining, 13 in industry, 24 in services.

³ Hofmannsthal in *La Prensa* of March 15, 1941: "El peligro que implican los altos precios de los productos de EE.UU."

⁴ Report of the Administración General de Vialidad Nacional of Oct., 1944.

⁵ Compare the report of Dec. 11, 1944, on the very inappropriate foundation of a Brazilian motor factory which pledges itself to use exclusively Brazilian material and parts with the general trend of this book.

⁶ Interview of the Chilean Senator Maximiliano Errazuriz of Oct. 6, 1944.

That is the real solution to many of the Argentine riddles and it reveals a danger which would rather be increased by the trend of this book. The author was part of this bureaucracy in its former stages and helped to increase its power. The situation created in a country by a powerful bureaucracy depends essentially upon the balance exercised by the elected representatives of the people. The author's chapter on "Politics" in Argentina gives much food for thought as to where a trend, which is now widespread over the globe, can lead under unbalanced conditions. This development in Argentina teaches quite a number of lessons. One of the many merits of this book consists in helping a pondering reader to understand them.

E. VON HOFMANNSTHAL

Washington, D.C.

The U.S.S.R. in Reconstruction—A Collection of Essays. Edited by HARRIET L. MOORE. (New York: Am. Russian Inst. 1944. Pp. 160.)

There has been, and there still is, dire need of a comprehensive study that will survey and assess the long-range effects of the emergency economic programs which have reinforced and sustained Soviet Russia's fighting men. Hence it is to be regretted that this small book falls short of its expectations. The editor, Harriet L. Moore, points out in the Foreword that in this series of articles the American Russian Institute tries to present a picture, admittedly incomplete, of the problems of post-war reconstruction and of the measures being taken by the Soviet government to meet them. Having made full use of the Russian sources available to them in this country, most of the ten authors of the articles could have prepared, individually or collectively, an analysis of the U.S.S.R. in reconstruction that would reflect to a larger degree the true state of affairs in the Soviet Union.

Like the special June 1944 issue of the *American Sociological Review*, *The U.S.S.R. in Reconstruction* appears to devote too many pages to irrelevant panegyrics. However, several of the articles in this volume are of lasting value. The essay by Dr. Lazar Volin and Sylvia Goodstein on the "Problems of Agricultural Rehabilitation in the Liberated Regions of the Soviet Union" is probably one of the most significant chapters in the book. According to these two specialists, the Soviet government is faced, for the second time in a decade, with the enormous problem of restoring the livestock population of the country. In the recaptured areas, drastic shortages of rural housing, of manpower and draft power, with great quantities of damaged farm machinery in need of repair, pose other grave problems. The writers conclude, however, that "What counts most is the recuperative power of the peasantry, which justifies the hope that the present terrible ordeal will be overcome as were so many others in Russian history" (p. 110).

A. Grajdanzev's chapter on "Labor in the Post-War Reconstruction of the Soviet Union" also merits serious attention. The writer argues cogently that "A comparison of the number of persons gainfully employed with 190 million, the probable figure of the post-war population, shows that there can hardly be a shortage of *unskilled* labor in the Soviet Union for many years ahead" (p. 127). Moreover, war has not interrupted the training of skilled

workers in the Soviet Union. This phenomenon may be ascribed to an interesting development in the new State Labor Reserve Schools. In 1941 the number of students in universities and colleges was about 650,000 and the number of professors and research workers was about 125,000. This gain shows that the system of higher education has not suffered irreparable damage from the war. Also, during the war, more than 200,000 engineers, physicians, agronomists, economists and other specialists graduated from these institutions and an additional 30,000 of such specialists graduated in 1943. Thus, these hundreds of thousands of specialists built, organized and fortified the rear of the Red Army.

Vladimir D. Kazakevich discusses the Soviets' "Financing War and Reconstruction" in the usual "party-line" pattern. The writer argues that, since the Soviet government has been conducting the war on a "drastic pay-as-you-go policy," post-war Soviet finance will not be burdened by the war debts facing her chief allies. Accordingly, "in spite of all the devastation, the Soviet Union is very likely to come out of this war with a greater industrial capacity than the country had when invaded" (p. 145). And, "financially, the U.S.S.R. is likely to emerge from this war in an excellent condition, ready to move forward on its uninterrupted program of construction" (p. 154).

Other articles explore a number of immediate and long-range problems of relief, of planning, municipal reconstruction, restoring the disabled veteran and his family, wartime changes in Soviet industry, and in the use of and search for Soviet natural resources. Mr. E. C. Ropes contributes a brief note on "The Future of American-Soviet Trade Relations." A translated article on "A Liberated Country: Ostashevo" by A. Bormotov, County Secretary of the Communist Party, indicates that more often than not the new officials are guerillas or others who have lived through the occupation.

Professor V. V. Lebedenko, representative of the Soviet Red Cross in the United States, provides an introduction which indicates the magnitude of the health problems in the temporarily occupied areas and the fundamental steps taken toward their solution. Only 5 per cent of the Soviet war wounded are expected to be permanently incapacitated, according to Dr. Lebedenko, and post-invasion epidemics and the care of "psychic" war sufferers—civilians, especially children, recovering from war shock and deprivation—will create far greater medical problems.

CHARLES PRINCE

Washington, D.C.

Economic Systems; Post-War Planning

NOTE: In view of the ideological character of, and the great interest in Professor Hayek's book it was found desirable to publish two reviews written from different standpoints.—*Editor*

The Road to Serfdom. By FRIEDRICH A. HAYEK. Foreword by JOHN CHAMBERLAIN. (Chicago: Univ. of Chicago Press. 1944. Pp. xi, 250. \$2.75.)

Economists engaged in improving our understanding of the competitive

system and/or in sponsoring arrangements which will assure its demise should be grateful to Professor Hayek for taking the time from his major preoccupation with economic analysis to explore the ultimate political implications of abandoning the competitive system. There is no economist writing in English more eminently qualified to do this job. In addition to his unique personal experience (a qualification which he properly notes) and his great repute as an economist, Professor Hayek is our most accomplished historian of the development of economic ideas.

The central position of the book can be readily stated, although to do so will not convey any idea of the wide historical knowledge or the elegance of analysis which has been used in establishing the position. "Freedom in economic affairs" as we know it in a system of competitive enterprise is a necessary prerequisite of the "personal and political freedom" which has characterized Western civilization. Socialism (as a method), collectivism, or planning, although often defended as a means of achieving a "new" economic freedom, must involve not only the end of true economic freedom (such as choice of occupation), a conclusion which should be obvious, but also the end of personal and political freedom.

There are indeed eminent economists who believe that a planned society can be conducted on the competitive principle. (What economic gain is then to be derived from a planned society is somewhat of a mystery. Surely these people are fully aware of the underlying poverty of the world at the present stage of technical development so properly stressed by Professor Hayek for the benefit of those collectivists who suffer from the delusion that a world of plenty can be produced magically by planning.) But this modern contribution to the theory of collectivism is no more than an intellectual puzzle and does not touch the fundamental issue of how such a society is in fact to be conducted. As Professor Hayek so cogently argues, we do not have a common set of values except on the very vaguest level. Not having such agreed upon values we cannot rely on the "rule of law" for centralized allocation of resources but must delegate vast powers to administrative bureaus. The current wartime practice of governing in the economic field by executive or administrative orders which grant sweeping powers to the administrators with the admonition to do good is not an uninteresting illustration of the philosophical doctrine developed in this book. This resort to arbitrary power is not an accidental aspect of planning since in the absence of a common set of values the resulting disagreements must be resolved by authority if planning is not to break down into chaos. Our experience with planning in wartime is frequently cited as demonstrating the feasibility of common agreement on the ends to be served by a planned society. However, our failure to discipline established vested interests demonstrates that, even at a time when the very existence of the community is at issue, either the ability to appreciate remote, as distinct from direct, effects is not as common as is required or else that even the emergencies of war cannot submerge the disagreements which exist.

We may indeed comfort ourselves with the hope that, while the fundamental features of totalitarianism must be the same in all communities, the Anglo-Saxon communities can escape the worst elements which have characterized totalitarian Germany. But the chapter on "Why the Worst Get on Top" and

the knowledge that the worst in Anglo-Saxon communities can be very bad indeed will deflate this hope very considerably.

In view of the widespread approval of a planned society by members of the economic profession, readers of *The Road to Serfdom* will be somewhat surprised by the selection of individual examples from among the pseudo-economists and no economists at all. In view of the frankness of the chapter on "The Totalitarians in Our Midst" (a frankness which is especially welcome with respect to those exiles from totalitarian Germany whose opposition to totalitarianism is peculiar and personal and not substantive), the explanation cannot be a reluctance to offend. The writings of the economists on planning do not offer suitable examples since a certain amount of irresponsibility has crept into their making of grand proposals for reform without the requisite examination of the noneconomic implications. This is in direct contrast with the character of the work of our great political economists whose broad interests precluded such narrow specialization.

Only those familiar merely with the slogans of the great nineteenth century economic tradition and those who, through ignorance or in order to advance their cause, arrogate to themselves all the virtues associated with an interest in economic well-being need to be reminded that the tradition is not a negative one. Professor Hayek makes it abundantly clear that a liberal society must do many things which can only be done through the instrumentality of governmental authority both in order to assure the continuation of competitive enterprise and to mitigate some at least of its undesirable results. This is true not only as regards the perfection of the rules of the game to increase the effectiveness of competition, monetary management to promote economic stability, and the control of economic activities not amenable to the competitive principle, but also as regards measures to alleviate the lot of those "who, in the great lottery of life, have drawn a blank." Given the task which Professor Hayek set for himself, there could be no elaboration of the problems in this field. The general rule that governmental activity should be oriented toward maintaining competition is a useful suggestion. There still remains the danger that our very proper concern for increasing economic well-being through state action will itself result in such great centralization of power as to create a new kind of "inevitability" toward collectivism.

In the sketchy chapter on "The Prospects of International Order" Professor Hayek adverts to the importance of the principle of federalism in allocating spheres of influence between sovereign nations and supra-national institutions. This principle, moreover, is of the utmost importance in ordering the domestic affairs of great nations and has been unduly neglected in the haste to get things done. Some things such as monetary management can only properly be performed by an authority with supreme coercive power. But other things are being pushed into this domain only because it has proven easier to persuade the more remote central government than the more intimate local government. How to draw the line between spheres of authority on both the domestic and international field and including the authority of enterprise constitutes one of the great problems to which liberals must attend.

AARON DIRECTOR

Rockville, Maryland

The Road to Serfdom. By FRIEDRICH A. HAYEK. (Chicago: Univ. of Chicago Press. 1944. Pp. xi, 250. \$2.75.)

This book has had a remarkable success both in England, where it was first published, as well as in this country, where, since its publication in September, it has been creeping into the best-seller class. This is indeed an achievement for a book dealing with an intellectually difficult subject: one which, notwithstanding the author's attempt to make it as palatable as possible to the general reader, remains fully understandable only to the professionally qualified.

This is not the first lance which Professor Hayek has broken in favor of that individualism and liberalism—both in economics and in politics—which the founding fathers of political economy first presented to the world as the basic attributes of a good society. Hayek and his Viennese colleagues have been the leaders in an astonishing movement of revival which in the early thirties began to appear also in England and which found in one section of the London School of Economics a group of militant adherents. There is nothing quite comparable to this movement in the United States. Hayek would no doubt be only too ready to assert that this is due to the fact that the virtues of individualism are still more vigorously practiced in this country than they are in what was once their home, England. Hence, there is no chance in this country for a band of zealots to be able to preach convincingly what is so largely still the rule even after twelve years of the New Deal. From the pens of Hayek, Mises, and other exiled German and Austrian scholars, as well as from their English disciples, there have come during the last ten years or more numerous articles and books which are variations on one and the same theme. In brief, the burden of their song is that modern Western communities have been beguiled by several generations of socialists or collectivists of all shades of opinion into adopting increasing measures of collective control over the economic and even the political lives of their citizens. The ideal picture which the seventeenth and eighteenth century philosophers and economists had painted was that of a free society in which the welfare of the individual was the supreme goal and was subject only to the equal right of all other individuals to the maximum measure of happiness. It was a society, moreover, in which the individual was acknowledged to be the best judge of his own interests.

Hitherto the preachings of this small group of talented writers have been primarily concerned with the economic aspects of a liberal society. In the present work Hayek avowedly enters the political arena. He sets the tone in the very first sentences of his Preface in which he implicitly reasserts his belief that professional economists, *qua* economists, should not be judges of political objectives but should act only as economic technicians who analyze and advise on the means for achieving certain objectives. True to this criterion Hayek openly declares his present book to be political, one therefore in which he can claim no expert knowledge as against his readers. He claims to write as a citizen, albeit an informed and intelligent one, but not as an academic economist. The subject matter, however, stands in his way.

Nevertheless, his manner of presentation and even his style have benefited from this descent from the Ivory Tower. This is a more lively book than any he has written before, and in some respects it is also a more candid one than the supposedly austere economic treatises that we have hitherto had from him. I think many of his readers will re-read his previous writings with a new insight into the workings of his mind.

The central thesis of this book is not substantially different from that which has been propagated by Hayek and others in the past. It is that we are all driving along the road of "planning" at a rapid pace without realizing that at the end of that road there lies not only a collective economy (in itself an objective which not all of the present advocates of economic control, according to Hayek, really desire), but also a full totalitarian state, be it of the German and Italian or of the Russian variety. The novel element in the way in which this thesis is now presented is to be found in Hayek's attempt to demonstrate from the history of economic, social and political doctrines that we have not only slid down the economic slippery slope, but that our minds are infected, that progressives in the Anglo-Saxon countries have failed to realize to what extent they are drawing inspiration from doctrines developed in Germany and which, even though they have socialist trappings, are essentially rooted in Prussianism and Militarism and in the horrible present-day manifestations of nazism.

There is no doubt that Hayek presents his thesis with considerable skill. He begins by showing us the road which we have abandoned. He significantly chooses a motto from one of Mr. Roosevelt's speeches which insists that the system of free enterprise for profit has not failed but on the contrary has not yet even been tried. In his first chapter Hayek paints an idyllic picture of our society progressing toward that happy state outlined by great thinkers such as de Toqueville, Acton, Cobden, Bright, Adam Smith, and indeed even earlier by the Greek and Roman philosophers, the founders of Christianity and the great scholars of the Renaissance whose ideas have made Western civilization what it is—or at any rate was. He then attempts to show why we have abandoned the search for the attainment of these great liberal ideals. He shows us the great Utopia of the collective state, the present-day manifestation of an age-long desire for the Millennium, which has lured us away from the liberal world. In these chapters he is primarily concerned with what he regards as the economic fallacies of planning, but he soon plunges again into the political current, and in a series of chapters written with obvious feeling he tries to show the inevitable connection between economic planning and totalitarian despotism. He shows the inevitable abandonment of the rule of law in any totalitarian society, which brings with it also the disappearance of all security, of all truthfulness in social and personal relations, and which inevitably fosters the development of the worst instincts in every individual.

There follows a brief account of the socialist roots of nazism, in which we find interesting accounts of the ideas not only of well-known German writers such as Sombart, but also of a host of unknown ones who, according to Hayek, must be regarded as forerunners of Hitlerism, and a brief ex-

posure of a number of writers (Professor Carr, Dr. Waddington, and others) who, without knowing it, are "totalitarians in our midst." They are carriers of the disease germ and by their writings they help, according to Hayek, to undermine the resistance of others.

The corruption of the liberal ideal in international affairs is briefly sketched. Planning on a national scale, according to Hayek, inevitably sets the inhabitants of one country against those of others. Monopoly, which is only another name for planning, must in the end result in an international "beggar-my-neighbor" policy with war as the inevitable outcome. This indeed is claimed to have been the idea of almost all the liberal thinkers of the nineteenth century. Federation alone can translate into international terms what democracy and individualism and the rule of law mean in a national community.

Hayek disclaims, however, to have written a book which presents a program, although in respect of international affairs he has allowed himself the pleasure of making some suggestions. In the main, he is concerned with diagnosis rather than with cure, though since the disease is diagnosed as one brought about by the patient's own bad living, the remedy presumably is in his own hands.

There are large stretches in this interesting book which one can traverse with a feeling of complete agreement with the author. His analysis of the manner in which the worst become the leaders of a totalitarian society, his trenchant and yet measured denunciation of the arbitrariness of totalitarianism, of its lawlessness and of the complete absence of personal security of the individual could hardly be bettered. His analysis, too, of some of the intellectual grave-diggers of infant German democracy is also extremely well done. The deep-seated antirational and illiberal ideas of German philosophy are skillfully laid bare, and the extension of this process of analysis to the various writers and thinkers in Western European countries as well as in the United States is very salutary. Particularly telling perhaps is the exposure of the falseness of the claim so frequently made by scientists and technologists that they are the chosen ones to run modern society. The irrelevance of scientific knowledge in determining political objectives and the inevitable growth of tyranny when the technologist is installed in the seat of power are well described.

However, when all this has been said, the good points of the book have pretty well been exhausted. The remainder, at any rate to this reviewer, appears extremely wrong-headed. One could write many pages exposing in detail the fragile nature of some of Hayek's arguments. His account of the broad, high road of liberalism which we were traveling before Germany corrupted us is far too idyllic to be true. The ideal society of the seventeenth and eighteenth century philosophers and economists cannot be said ever to have existed, and where real conditions approximated the theoretical picture, as perhaps they did in the hungry forties in England, the results do not conform with Hayek's pretty picture. The falseness of the belief that we did at any time in any country have a fully fledged individualist economy from which we suddenly departed has been shown up many times.

Essentially, what Adam Smith and the others did was to criticize the

society of their own day. Their great contribution to economic betterment is to be found not in the portrayal of a lifeless and abstract society built on the principles of Robinson Crusoe economics, but in the vigor of their attack upon privilege and monopoly. Nor is it true to say that the growth of modern monopoly or modern economic nationalism is an intrusion into what would have been a "normal" development of nineteenth century economy. The organic growth of restrictions, both by industry itself as well as by the state, both domestic and international, has been convincingly demonstrated by many economists of all shades of political opinion, and one would have thought that in this day and age the true seriousness and complexity of that problem would have been sufficiently realized to make it impossible for anyone to come forward with the facile and long-exploded arguments which Hayek uses.

One looks in vain in this book for a really penetrating historical analysis of the connection between the growth of monopoly and the rise of nazism. Nowhere does one find a clear exposition of the specific manner in which the increasing monopolization of German industry and its interlocking with the banks led to the inextricable interweaving of persons and policies between the nazi state and big business. And in so far as a similar, and equally sinister, movement has taken place in other countries, Hayek contents himself with ascribing it to the vicious influence of the socialist theories of planners and does not attempt to uncover its true meaning.

Nor has Hayek much of relevance to say about our present economic ills, in particular those of his country of adoption. A few very general phrases about the need for gradual and "planned" de-control, and a general exhortation to the British to work hard, reduce their standards of living and restore a fully competitive economy is all the guidance we get to lead us away from the road to serfdom. In the comparatively few positive passages he tries to be reasonable and he acknowledges the need for some planned and centralized action even to the extent of recognizing the desirability of ensuring to every member of the community some minimum standards. But all this remains lip-service, rendered, no doubt, in the interest of persuasiveness; it does not come from the heart, for Hayek suffers essentially from that intolerance in matter of ideas which he ascribes to those whom he attacks.

For him nothing short of complete freedom of competition will do. It is a freedom, moreover, to which he wants "to go back." This well-worn sleight-of-hand, the identification of an abstract figment of the textbook with a lost Golden Age which is supposed once to have had reality is paraded again and again throughout his book. Thus, in spite of Hayek's ostensible determination to make the fullest use of history, this remains a wholly unhistorical book, one in which the most jejune analogies have to serve in place of a real historical analysis.

Hayek also parts company with historical insight when he tries to show that what can loosely be described as socialist thought in England and the United States, but particularly in the former, owes much to German thinking. In the case of England this is a complete distortion of the true intellectual links. The roots of what may be described as modern socialism,

at any rate in its widest sense, go back far into English (and French) intellectual history. It was from these countries that Germany—an upstart as far as modern industry and its civilization are concerned—drew her intellectual nourishment, both in its liberal and in its socialist forms. Nazism is a dreadful enough example in itself without conjuring up the bogey that thinking in the Anglo-Saxon countries is in danger of being corrupted by a host of obscure German writers. After the ordeal which the world has had to endure for ten years or more, we do not need books to make our flesh creep.

Perhaps the most vulnerable aspect of the book is the frequent identification—to which one would have hoped so experienced a social scientist as Hayek would not have had to stoop—of all forms of collectivism and socialism with nazism. A few years ago this was a common tactic in popular journalism and in political speeches, but one would have expected something more searching in a book of this kind. Hayek might have stopped to reflect upon the very different development during the last few pre-war years in Germany and in the Soviet Union, and he might have had the grace, at the least, to acknowledge the very different manner in which the war itself has been conducted by the enemy and by our ally: we have yet to be shown that Maidanek is an inevitable corollary of a collective economy. The truth is that Hayek's strong political prejudices show through the veneer of reasonableness coupled with high-mindedness with which he tries to impress the reader.

ERIC ROLL

Washington, D.C.

Social-Economic Movements: An Historical and Comparative Survey of Socialism, Communism, Coöperation, Utopianism; and Other Systems of Reform and Reconstruction. By HARRY W. LAIDLER. (New York: Crowell, 1944. Pp. xx, 828. \$3.75.)

It was among the objectives of the author of this book to improve on one of his earlier works, *A History of Socialist Thought*, now out of print. The second part of the former publication was rewritten and considerably expanded. As the new subtitle indicates, the author deals with diversified subjects. Actually, the book is even more ambitious than its comprehensive subtitle promises. Socialist theories, socialist movements and consumer coöperation are discussed without any historical or national limitations. The author attempts to offer a complete historical survey, for instance, by beginning his analysis of utopianism with the prophets of the Old Testament and the Greek philosophers, following up utopian ideologies through the Middle Ages and modern centuries and finishing with the programs and dreams of Theodor Hertzka, Edward Bellamy and William Morris. As far as countries are concerned, the book is simply global. Doctrines, plans and policies of all leading nations are examined. From this angle, the chapters on "Socialism in South Africa and Asia" and on "Labor and Socialist Thought in Latin America" will be particularly welcomed. The encyclopedic character of the book may be also illustrated by the fact that recent programs of post-war reconstruction have been incorporated.

The approach made by Mr. Laidler is rather uneven. In many parts of the book the biographical method prevails. These parts would better fit a book on the great socialists than a book on social-economic movements. In other chapters attention is concentrated on the historical description of organizations and institutions. We also meet with scattered sociological and economic evaluations and, occasionally, with an ascension into the stratosphere of genuine philosophy.

While the well-known French adage "*qui trop embrasse, mal étreint*" is notorious for its exaggeration, we must not be surprised if so comprehensive a program, even in a large volume, does not attain the standard of perfection. One may be impressed by the erudition and the pleasant style of the author, but one can not help noticing that this or that subject is not treated fully and thoroughly enough. This criticism does not imply that parts of the book offer no valuable information, especially for the newcomer in the field.

This general evaluation may be supported by a few specific considerations. The history of utopianism (Part One) is not a new field. It was therefore feasible to present a satisfactory analysis even in short space. For this purpose, excerpts from outstanding books, necessary and helpful as they are, can serve only as raw material. They must be supplemented either by a classification of different brands of utopianism or by an elaboration on the historical trend of utopian ideologies. Such broader aspects, however, were neglected in this book. The reader might get the incorrect impression that in the long history of Greek utopianism Plato's *Republic* is an isolated phenomenon. Should he not be told that the poetic and sometimes phantastic scheme of the *Politeia* was supplemented by Plato's more realistic companion plan of the *Nomoi*? Would it not have been worth while to mention that, during those times, a fascinating literature developed which in some respects was more specific and had more economic details than the dream of the "social-aristocratic" founder of the Academy? Some of those plans were conspicuous by their radical suggestions. Phaleas of Chalcedon recommended in his *Politeia*—a work which perhaps was written even before Plato's homonymous book—nationalization of all industries. In the utopian island depicted by Euhemerus (in his "holy document"), the means of production had been collectivized. Except for home and garden, nothing was left in private property. Central regulation of economic activities and communism of family relations was suggested in other utopian schemes, for instance by Hecataeos of Abdera, a contemporary of Alexander the Great. During this period, communistic ideas and schemes were so common that Aristophanes, in his famous comedy *Ecclesiazusae* (written about 392 B.C.) used them as a target for his satire. Some of the early writers anticipated Thomas Norus and his numerous followers by presenting their utopian scheme as the reports of sailors or travelers who by a concatenation of accidents had reached a lonely island in a distant sea.

Turning to the seventeenth and eighteenth centuries, we miss some necessary information, for instance about the longest experiment with communism which history knows, the Jesuit State of Paraguay (1610-1768). There was no reason to disregard both the five volumes of Vairasse's *Histoire des Sevarambes* (1677) and the revolutionary plan of a peaceful French country priest Jean

Meslier. After having inspired leading philosophers of the enlightenment era, Meslier's *Testament* was finally printed in three volumes in 1864. He has been called the most consistent proponent of world communism. The present author seems unaware of the fact that the Physiocrats also made some contribution to utopian ideology. It was significant that their uncontested chief, François Quesnay, considered himself as a direct successor to the ancient Greek philosophers. Like Plato, who segregated the idealistic scheme of his *Politeia* from the realistic program of the *Nomoi*, Quesnay distinguished between the austere principles of the "ordre naturel" and the more practical reform plans derived from the "ordre politique." The harmonious conditions of the "ordre naturel" were the millennium which, of course, could never be reached.

From a bird's-eye view, all schools of socialist thought until the middle of the nineteenth century may be considered as preparatory steps for the development of "scientific socialism." The appraisal of the political, social and economic system of Marxism, therefore, is the natural center of any history of socialist thought. Yet its treatment in the present volume is almost as disappointing as in the previous presentation by the same author, published in 1927. While the author devotes ample space to describing the early life, the university days, the marriage, the friendships, the journalistic activities and other major or minor biographical details of the master, he becomes reticent as soon as fundamentals of Marxism are to be discussed. In a volume of 828 pages on socialism, to devote exactly ten pages (pp. 160-169) to the "Theoretical Foundation of Marxism" seems badly out of proportion. While it may be possible to say in ten pages enough to develop the core of Marxian theory and to point up the most important ideas in but a few lines, what has happened here is that several of the fundamental principles of Marxian thought are not even touched upon.

For instance, the author mentions the materialistic conception of history, the doctrine of the class struggle and the labor value theory as "the three cornerstones of Marxian theory." But he does not discuss the laws of capitalistic evolution—such as the law of concentration of enterprises, the law of accumulation of wealth and the law of increasing misery with its corollary, the law of the gradual disappearance of the middle classes; nor does he examine Marx's doctrine of the withering away of the state. These omissions are particularly inappropriate in a book which, in its later chapters on Revisionism (Chapter 20, "Eduard Bernstein and Revisionism"; Chapter 21, "Marxists' Reply to Revisionists"; pp. 237-276), deals extensively with those laws of capitalistic evolution and with the feud between the evolutionists and voluntarists and, in its analysis of principles and tactics of Russian communism (Chapter 25; pp. 367-383), states that Lenin's theory of the withering away of the state has been supported by the claim of being a revival of Marx's and Engels's proposals.

Also Laidler's interpretation of Marx's economic theory is deficient. For example, the labor value and surplus value theories have been reproduced without mentioning the change made by Marx himself in writing the third volume of *Das Kapital* to meet the obvious dilemma: that the labor value theory cannot be reconciled with the assumption of an equal profit rate. The

only possible solution then—which, incidentally, was found by Wilhelm Lexis independently of Marx—was a narrowing down of the labor value theory. In his third volume, Marx held that only under special conditions are individual commodities exchanged at their values. In general, they are sold at their cost prices plus the average profit rate. Although this new assumption could not be proved, it represents a fundamental change of the original doctrine. As many critics have maintained, the labor value theory capitulated twice before a variant of the cost of production theory: first, in the work of its famous individualistic sponsor Ricardo and, secondly, in the system of his socialistic counterpart Marx. The reviewer would not object if an elaboration of this controversy had been left out in this otherwise so comprehensive survey, but he does believe that this essential qualification of an essential doctrine of socialism should not have been ignored.

FRITZ KARL MANN

The American University

Statistics; Economic Mathematics; Accounting

Financial Accounting—A Distillation of Experience. By GEORGE O. MAY.
(New York: Macmillan. 1943. Pp. ix, 274. \$3.00.)

This book will exercise an outstanding influence on accounting for many years. Among the leaders of the profession it will be recognized as a systematic presentation of the nature of financial accounting, consistent with the native genius of that art as they meet it in practice. Doubtless many of them will not agree with all of the positions taken by Mr. May, but the abrasive character of the book will engender the type of discussion which will further clarify the subject. Younger accountants will find it a valuable means for that transfer of the fruits of experience which is part of a profession.

By the nature of our somewhat esoteric art much of the literature of accounting tends to be closed to those who are not accountants. This volume is not technical in that sense and, though highly condensed, its style is clear and readable for those proficient in law, regulation, and the several branches of economics. One of the chief tasks of such a volume, which the author doubtless had in mind, is to clarify for those in related professions what financial accounting does, what its limits are, and the reasons for the position it takes.

This volume is a distillation not only of experience in a long professional career, but also of extensive writing in accounting and economics. Beginning shortly after he became senior partner of Price, Waterhouse & Co. in 1911, Mr. May wrote a series of essays notable both for their forceful and penetrating analysis of current problems and for their breadth of view on the responsibilities of the profession. Many of these papers were brought together in a volume published by his associates in 1936.¹ *Financial Accounting* is a summary and further development of these earlier lines of inquiry. It also reflects the author's long association with the research and other professional activities of the American Institute of Accountants.

¹ *Twenty-Five Years of Accounting Responsibility*, New York, 1936.

Many years ago Dean Edwin F. Gay drew attention to the need for effective writing by men carrying responsibility in the world of affairs. One can detect in the writing of the younger men in the profession the effect of Dean Gay's position, the example of Arthur Lowes Dickinson and of Mr. May himself.

It is difficult in reviewing a volume in which the argument is buttressed by so many facts, both current and historical, to select that facet which should be emphasized; here it is the method of reasoning in accounting which seems most significant. The utilitarian nature of accounting is drawn as an inductive conclusion from the history of the profession over the last forty years, and its wide acceptance is set forth as a preliminary to further progress.

Mr. May emphasizes that accounting is to be judged by its usefulness, that accounts are conditioned by the purposes they are designed to serve, and that general purpose accounts cannot be expected to serve all purposes equally well. The controlling objectives need careful examination:

Financial accounting is now generally recognized as being primarily historical in character and as having for its most important function the extraction and presentation of the essence of the financial experience of businesses, so that decisions affecting the present and the future may be taken in the light of the past. The rules of accounting, even more than those of law, are the product of experience rather than of logic (p. vii).

... It is an art, not a science, but an art of wide and varied usefulness . . . (p. 1).

It became clear to me that general acceptance of the fact that accounting was utilitarian and based on conventions . . . was an indispensable preliminary to real progress . . . (p. 2).

The examination of principles, postulates and conventions in Chapter III clarifies a whole series of problems by showing the necessity of conventions, distinguishing and stating certain postulates and showing the limited sense in which the word "principles" should be employed if it is to be most useful. The Institute has already taken the position that "principle" should be used only in the sense of "a general law or rule adopted or professed as a guide to action; a settled ground or basis of conduct or practice." "... Accounting principles are founded on considerations of utility and are subject to modification as criteria of usefulness change."

The sanction for a particular principle or guide to action thus lies in the effect of the action taken thereunder on all those who rely on the accounts. The application of such a method of reasoning is necessarily difficult. It requires keen analysis and professional judgment, and a broad appreciation of the interest of the several groups which use accounting statements and the nature of the statements which will serve their needs most fully. This breadth of the basis of judgment was ably stated by a committee of the Institute, of which the author was a leading member:

The committee regards corporation accounting as one phase of the working of the corporate organization of business, which in turn it views as a machinery created by the people in the belief that, broadly speaking, it will serve a

useful social purpose. The test of the corporate system and of the special phase of it represented by corporate accounting ultimately lies in the results which are produced. These results must be judged from the standpoint of society as a whole—not from that of any one group of interested parties. (Accounting Research Bulletin No. 1, issued September, 1939.)

The utilitarian method of reasoning implicit in the experience of the profession has a certain dynamic quality. It has needed to be made explicit in order to be forceful. One might draw an analogy to the lectures of Oliver Wendell Holmes on "The Common Law" in 1880 and to the work of Dr. William Osler in medicine. Both made new and dynamic methods explicit. While the utilitarian point of view is by no means universally held among accountants, it has received wide recognition through the research activities of the Institute.

It is impossible within the limits of a short review to indicate fully the areas to which this reasoning is applied. The question how far cost and value should be reflected in accounts is perhaps the central question of accounting. Those in the profession must meet the facts of business in all the variety continually presented. Some economists will be disturbed by the author's factual analysis of cost and value but others will find it an intriguing amplification of economic generalizations in these familiar fields.

The author's discussion of regulation by the Securities and Exchange Commission is notably well tempered and well balanced. The statement has frequently been made, even by persons assumed to be familiar with the facts, that the legislation establishing this commission followed British practice. The author shows clearly the error of such statements and the extent to which the securities legislation used a legalistic rather than an accounting approach. While recognizing that "the Commission has up to now exercised the power to prescribe accounting rules . . . with restraint and judiciously," he questions the wisdom of granting power over accounting rules to a body inexperienced in the professional sense. Historical perspective shows progress based on professional judgment and responsibility to be more hopeful than too great reliance on regulation.

The growing importance of the determination of income is recognized throughout but only one chapter is devoted specifically to income. This warrants the hope that, having laid the groundwork so thoroughly in this volume, the author will in the future devote a second volume to a further examination of this subject.

This volume has breadth and scope; it makes explicit many things which have been "seen through a glass darkly" by the profession. Possibly its outstanding characteristics are two: it delineates a method of reasoning native to the art of accounting, having a dynamic quality through which difficult problems are brought progressively closer to solution; second, the responsibilities of the profession are treated in terms as broad as the effect of accounting on the economy, with the corollary that the art of accounting is an integral part of the art of administration.

W. ARNOLD HOSMER

Harvard University

Business Cycles and Fluctuations

Public Spending and Postwar Economic Policy. By SHERWOOD M. FINE (New York: Columbia Univ. Press. 1944. Pp. viii, 177. \$2.50.)

This book mainly is an essay on the stagnation thesis. In the first section of the volume the stagnation thesis is presented and a distinction is drawn between the compensatory public spending that would be required to offset a chronic deficiency of private investment, and "pump-priming" that would produce a high level of private investment by means of initial government expenditure. Mere pump-priming does not, but compensatory public spending does involve a "serious departure from budgetary orthodoxy" and its advocacy "marks a sharp break with conventional economic thought." After expounding the stagnation thesis, the author expresses his criticism of it. He is unconvinced by the argument of the Keynesians in general and of Professor Hansen in particular, and he believes that restrictive business and labor practices and the absence of a hospitable investment climate are more likely to have been responsible for stagnant trends in the past than are the circumstances emphasized by the stagnationists. Chapter VI contains a summary and brief discussion of economic developments from 1933 to 1940; this is the most useful section of the volume.

WILLIAM FELLNER

University of California
Berkeley, California

Fluctuations in Income and Employment; with Special Reference to Recent American Experience and Post-War Prospects. By THOMAS WILSON. (London School of Econ. and Pol. Sci., stud. in econ. and comm. no. 8. (London: Pitman. 1942. Pp. x, 213. \$3.00.)

This skillful little book attempts to explain why our economy is inherently unstable, what forces pushed it off balance in the United States between wars, and how to balance the post-war system without abandoning democracy or embracing an ever-swelling debt.

The instability of the system is explained as inherent in security speculation, a theory credited to Keynes, Hicks, Kaldor, and Kalecki. The explanation runs roughly like this: If long-term interest rates should fall appreciably, perhaps due to a decline in investment *demand* for funds, the *supply* of those long-term funds will fall also. This happens because interest rates are expected to rise again in the future since they have always risen from past depressions, and is brought about by the tendency of bankers and others to sell securities and hold funds liquid until security prices stop falling. Their action keeps the investment rate of interest from falling below the average of expected future short-term rates and, consequently, from declining with the profitability of investment. But since, in the presented theory, interest has the chief rôle in inducement to invest, its inflexibility retards the recovery of investment and, therefore, of income and employment.

This theory is, fortunately, not basic to Dr. Wilson's book. Still, one wonders why he leans at all on so unsubstantial an explanation. For changes in interest between zero and, say, 6 per cent can affect long-term investments much less powerfully than moderate changes in price or rent expectations or in cost of producing, operating, or amortizing the assets to be acquired by investment. Many economists have pointed out the interest rate's comparative weakness. In fact, Dr. Wilson later in the book approves the Oxford report that relatively few investment decisions of replying firms had ever been affected by cheapness or ease of getting funds (pp. 81-83). Yet in setting out this theory the author never questions the major rôle he gives to interest.

But whether interest and security speculation do prevent a quick return to the course of full employment, what gets the system off-beam in the first place? Wilson, though British, reviews the chief possible causes of downturns in the light of the United States experience during 1919-1938. Cost and tightness of bank credit and bond capital he sensibly rejects on grounds that the increases were small and that firms relied more and more either on their undistributed surpluses or (during the late 1920's) on the stock market. Wage rates he wisely leaves in the air, it being too difficult to trace the effect of changes in money rates on real wages. Nevertheless, he believes that rigid money wages in United States heavy industry accentuated the cumulative downswing in the early 1930's.

He discovers no scarcity of savings in 1929 and 1937. On the other hand, though he regards falling consumption growth-rate as a *possible* or contributory cause, he rejects it as a *necessary* cause. For the 1924-25 and 1926-27 declines in consumption growth were even greater than the 1928-29 declines (comparison from Kuznets's figures), yet did not precipitate any such cumulative economic downswing as that which followed 1929.

As a matter of fact, the 1929 economic collapse was, he finds, started by a *combination* of factors. One was a decline in rate of consumption growth; another, the slowing up of innovations; and a third, the exhaustion of demand for building, resulting semi-autonomously from great overproduction in the early 1920's. Once the collapse started, the spiral effect of consumption on investment and investment on consumption took over, in the form now known to economists as the multiplier-acceleration interaction. Other factors in the downswing and subsequent depression are cited as the decline in foreign trade and the unfavorable political atmosphere.

This explanation is well reasoned. It serves, of course, only as an introduction to a full explanation, for the author's brisk handling of income statistics can hardly give us the last word on movements in consumption. Too, Wilson skips a bit lightly over the explanation of cycles in building and innovations, in view of the critical importance he quite rightly ascribes to them. Nevertheless, his explanation of the initiating factors in cycles is respectably done and forms the best part of the book.

As to the post-war outlook and what can be done about it, Dr. Wilson draws somewhat more optimism from his analysis than do I. It is true he fears a repetition of 1929 in default of sound policy, since the inherent cause of trade cycles is security speculation, which is also inherent in the "semi-

liberal social service states" in prospect for post-victory United States and Britain. But he believes that government can minimize unemployment through public works, broadly conceived, and direct family allowances and pensions.

Yet government debt need not indefinitely increase, for two reasons: One is that there seems to be no such thing as chronic underconsumption or oversaving (shown by a brief study of Kuznets's income figures for 1920-29). Even if oversaving should persist, the author feels it could be cured partly by levying death duties and partly by increasing progressive income taxes, accomplishing the latter gradually so as not to impair incentives. Should incentives, however, threaten to be impaired, capital of the wealthy could be levied on (in large doses to prevent the levies from being financed by increased savings!). The other reason why debt need not overwhelm us is that cumulative cyclical downswings in consumption and investment can be checked by proper timing of government expenditures before the need for them becomes too huge. Success will depend largely, he concedes, on adoption of a more moderate policy by which organized labor refrains at such times from holding the nation up for inflationary wage increases, as well as on cooperation of nations in regard to foreign exchanges and trade cycle policy.

Only the outlines of his argument are resketched here, for Dr. Wilson paints a big theme. Indeed, the theme is a little big for the canvas. For the author tries valiantly with both theory and statistics to cover the whole range of causes and cures of cycles, and is naturally prevented in a small book from accomplishing this major purpose with the same excellent craftsmanship he often displays where he puts his mind to any detail. Economists and government planners may, for that reason, not find the book quite as new or profound as the author was probably capable of making it. Business men will find it useful but hard going, for it was obviously not written for them. Still, the book is sensible and, to a trained reader, very lucidly written. It should be especially helpful to graduate students in consolidating their study of business cycles.

CLARENCE D. LONG

Washington, D.C.

Public Finance; Fiscal Policy; Taxation

Curbing Inflation through Taxation. Symposium conducted by the TAX INSTITUTE. (New York: Tax Inst. 1944. Pp. ix, 261. \$2.50.)

This volume, like its predecessors, brings together different, sometimes conflicting points of view of both economists and others interested in public finance on a topic of current interest. There are nineteen contributors. After brief sections dealing with some of the "earmarks" of inflation and inflationary aspects of the public debt, the longest section deals with various fiscal devices for curbing inflation. The fourth section is a compact presentation of the experience of four other countries (U.S.S.R., Italy, Canada and England)

in curbing inflation through fiscal devices. The last section is fittingly devoted to the possibilities of post-war inflation and suggested tax action.

There are some excellent presentations of particular aspects of the inflation problem, of which those by Milton Gilbert, Alvin Hansen, Marius Fariolletti, Roy Blough, Carl Shoup, A. Kenneth Eaton (summarizing the Canadian experience), Mary Murphy (summarizing the English experience), and Mariner Eccles stand out. Nevertheless, the fact remains that "Curbing Inflation through Taxation" seems a much more academic topic in 1944 than in 1942, when the symposium dealt with "Financing the War." The longest sections in both books are devoted to fiscal devices for curbing inflation.

Declining interest in the topic of this symposium has not been due to any decline in currently accumulating inflationary pressure. As Dr. Newcomer says in the Foreword, "The war on inflation has yet to be won," and the growing importance of "black market" problems attests to the truth of her statement. But there have been two developments in the last year which cannot be overlooked. First, the attitude of Congress during the framing of the Revenue act of 1943 made it apparent that, in the present emergency at least, taxation had gone about as far as Congress considered politically desirable. Second, interest has grown in recent months in the possibility of deflation as well as inflation early in the post-war period, even in the face of the unprecedented accumulation of liquid assets available to exchange for goods and services. In essence, the question is this: In the face of the unavoidable unemployment of the reconversion-transition period, how will people react? Will they carry out the elaborate spending plans which they are now making, or will they tend to "sit tight" and wait to see what happens?

The result of these two developments since the program of the 1944 symposium was "set" is that many of the presentations seem to be more an analysis of fiscal proposals of the recent past than an analysis of the adaptation of certain fiscal techniques to policy making in the period which lies ahead. A good example is the careful analysis of the spendings tax by Professor Buehler.

Only in the paper by Mr. Eccles on "Possibilities of Post-War Inflation and Suggested Tax Action" is there special emphasis on the importance of taxation as a means of controlling *deflation* as well as inflation. A few other contributions may be mentioned. Milton Gilbert begins the symposium with a useful summary on "Consumer Spending during the War." Roy Blough, Director of Tax Research in the Treasury, gives an authoritative account of "The Individual Income Tax as a Method of Inflation Control." Alvin Hansen has a clear analysis of "Inflationary Potentialities of the Public Debt," in which he breaks down the problem into several parts—inflationary potentialities involved in debt creation, in maintainence of a debt already incurred, and in the magnitude of a debt already incurred.

The symposium concludes with an Appendix containing some remarks on "Tax Information and Public Education" and a bibliography.

EDWARD D. ALLEN

Money and Banking; Short-Term Credit

Development of Two Bank Groups in the Central Northwest: A Study in Bank Policy and Organization. By CHARLES STERLING POPPLE. Stud. in bus. his., Vol. ix. (Cambridge: Harvard Univ. Press, 1944. Pp. xxv, 418. \$4.50.)

The central theme of this book is the sudden emergence in 1929 of two large bank groups and their survival through the storm and stress of the thirties. "Despite all their tribulations every member of each group was open for unrestricted business at the time of the bank holiday [of March, 1933], and as soon as the holiday was over, every group bank immediately reopened for unrestricted withdrawal. . . . Depositors of each unit bank [in each group] have always received one hundred cents on the dollar and they have always had an opportunity of getting loans" (p. 335). Yet in the four darkest years eight hundred banks which were not in the groups failed.

This rare experience merits a search for the mysterious springs of faith, hope, and competence. Did Minnesota possess superbankers as well as super-football coaches? Was it a Swedish "middle way" transplanted? Or was it a bit of inevitable gradualness which was speeded up in 1929 and then fortunately was arrested by the crash when it had gone far enough but not too far? Mr. Popple's conclusion combines the first and third of these possible explanations. Group banking was "a logical evolutionary step in the development of unit banks in the Ninth Federal Reserve District" (p. 339). Its welfare was in the hands of a generation of bankers who inherited a tradition of sound banking methods from James Forgan, a Scot from Nova Scotia, in the last decade of the nineteenth century; who had the essentials of salvation drummed into their heads by the disasters of the eighteen-nineties; and who then took a refresher course in the rubrics of ruin when the Central Northwest ended its period of frontier expansion and war boom in 1920.

The first half of the book describes the general economic development of the region from the coming of the first settlers, the growth of country banks, and the rise of the Twin Cities (Minneapolis and St. Paul) as the commercial, transportation, industrial, processing, and eventually financial metropolis for an area stretching as far west as Montana. In that metropolis four large banks emerged as leaders, and their conservative desire to restrict themselves to good commercial self-liquidating loans was helped by the growth of local deposits as well as by the establishment of other types of financial institutions to provide other forms of credit. Yet no matter how strong their position became, the general banking structure was rendered vulnerable by the crop of small banks in the two cities and the farming areas.

Hard times in the twenties cut down the number of banks in the region from 3,550 in 1920 to less than 2,400 in 1929. The Minneapolis Big Two began to strengthen the urban position by acquiring suburban banks and the rural conditions by exerting persuasion or pressure on the hinterland where they served as bankers' banks. The city banks cleared checks, held balances,

and made loans to their rural bank clients; but each side was free to terminate the connection, and group ownership did not spread beyond the suburbs, except in the case of a few country chains with many weak links and no strong metropolitan hitching-post.

In 1928 the rumor spread that the wicked eastern capitalist was planning to buy—or butt—his way into the large banks in the Twin Cities and into the rural banks as well, just as he was doing in public utilities, insurance, manufacturing, the movies, and retail stores. Mr. Giannini was quietly buying small blocks of stock in the big banks, and strange advances from New York or Chicago were being made to country bankers. This news made the Twin City bankers decide that something must be done. But other influences were at work. The first was the feeling that country banks would be strengthened and better managed as part of a larger organization. Their owners were willing to gain the strength, but not to face the loss of prestige and of income that would be inevitable if their banks became mere branches. Hence the group idea was palatable, or even popular, with many country bankers and stockholders. In the second place there was the belief that if country bank stocks, which sold at low prices for lack of a good market, were exchanged for those of a holding company, the latter would be listed in the big exchanges and would command a better price, especially in the roaring late twenties. The holders of country bank stock therefore jumped at the chance to make money, so much so that when the grouping movement had once begun they crowded the offices of the two groups, eager to be absorbed.

Northwest Bancorporation announced its birth in January, 1929, as a holding company which immediately took over the Northwestern of Minneapolis and banks in North Dakota, Wisconsin, and Iowa. The Minneapolis First National had to follow the example of its chief rival, and the movement developed momentum every day until the seriousness of the general crash brought it to a halt. By the end of 1930 the two groups had acquired about 10 per cent (222 in all) of the banks in the Northwest, holding over 40 per cent of the total deposits. If the hurricane had not struck in the fall of 1929, heaven only knows how many of the remaining banks would have remained outside the fold.

The next five years were a period of "ordeal and survival." In that ordeal the depositors lost nothing; the officers and employees lost a little; but the stockholders took it on the chin as the market price of their stocks dropped, as earnings fell, and as dividends shrank. Since recovery and the coming of the Federal Deposit Insurance Corporation, the history of the operating units has been that of all banks: the need for more capital, the changing character of bank assets, the eager search for new kinds of business, the introduction of minimum service charges, and the declining trend of earnings. Advertisements on billboards or in the press and even the employment of a university professor as war news radio commentator three times a week are now normal methods of attracting small borrowers or depositors. In 1940 the number of banks in the district stood at half the 1929 figure. Of the 1,288, 13 per cent were in the groups, and held 55 per cent of the deposits of the region.

For his material Mr. Popple has ranged over a vast quantity of printed sources. But his chief claim to attention springs from the fact that for some years he worked in the offices of one of the groups; that he has had access to the private records of both groups; that he has had countless conversations with the bank senior executives, and that some of them have read his manuscript. Consequently, while he insists that his work is not an "official history," it is in large measure an "officials' history." He writes from the inside, and has, as his editor says, "the point of view of the Street, of the Group," rather than of the man in the street and the griper. He virtually ignores or dismisses critics of the groups as ignoramuses or as demagogues, and of course he may be right in doing so. The strongest criticism I have been able to garner from competent Twin Cities readers of the book is that its author has shown reserve and delicacy in handling some warm issues, and has sanded and varnished an occasional rough spot. To them Mr. Popple would doubtless reply that at least the groups have been successful in a field of almost despairing struggle, and have provided the safety and stability long needed in the region. And he would be right, provided he did not claim all the credit for them.

HERBERT HEATON

University of Minnesota

International Trade, Finance and Economic Policy

International Currency Experience: Lessons of the Inter-War Period. By the ECONOMIC, FINANCIAL AND TRANSIT DEPARTMENT, LEAGUE OF NATIONS. (New York: Columbia Univ. Press. 1944. Pp. 249. \$3.25.)

In a Preface to this work we are told by Mr. A. Loveday that Chapter VI was written by Professor William Adams Brown, Jr., and one infers that all of the remainder is the work of Mr. Ragnar Nurkse.

We are reminded of the prevailing fear during the 1920's that a shortage of gold would soon appear, and of the consequent recommendation of the gold exchange standard by the Genoa Conference in 1922. It was, in the main, that system which was put into effect during those years. As events turned out, the deflation was only postponed, and when the greatest need for "economy" of gold developed there appeared the least willingness to hold foreign exchange as reserves. This is not surprising, since the gold exchange standard is at best a *very* fair-weather system.

It was the more or less accepted notion of the "rules of the game" under the gold standard that central banks would expand and contract their domestic assets as gold flowed in or out; but during the inter-war years such action was taken only in a minority of cases. It is stated that this was due in part to certain "automatic" forces which tend to neutralize gold flows, such as the repayment of indebtedness to the central bank during an inflow, but also in large part to deliberate neutralization. In the early years of this period the gold-losing countries were not on the gold standard, and therefore a

loss of gold did not require a reduction in the quantity of domestic currency; while the United States looked upon the incoming gold as only a temporary addition to its stocks, and did not desire to expand the currency, since it was believed that such expansion would require a later contraction. However, neutralization continued to be the rule during the later twenties. In the depression years "hot" money transfers were prevailingly offset, and quite aside from this fact gold-losing countries were not often willing to contract their currencies.

Under the gold standard, reserves of international currency are desirable to meet short-run discrepancies in the international debit and credit items. If these are not held a temporary outflow may lead to unnecessary readjustments in the domestic economy. It is pointed out that agricultural exporting countries will have greater need than industrial nations for such "buffer" stocks of currency, since their trade balance is subject to wide fluctuations. The reviewer would disagree, however, with the further conclusion that an international currency is a prerequisite to multilateral trade.

Alternatives to the holding of "buffer" stocks are exchange rationing and adjustment, but neither of these is commended by Nurkse for this purpose, although he seems not to be opposed to them as a means of avoiding deflationary and inflationary influences from abroad. The reviewer questions the desirability of exchange rationing in these latter connections. The essential thing is that the monetary agency of the government be not hamstrung in dealing with domestic deflation because of the loss of reserves. It would be far better if there is this danger simply to leave the gold standard, allowing the exchanges to seek their equilibrium level, and to increase the stock of currency to any level required to maintain the price level. This action would create no such restraint of trade as exchange rationing, and it does not involve a deliberate depreciation of the currency to which other nations may reasonably object. Exchange adjustment and retention of the gold standard might produce the same results, were there any way of determining the extent of devaluation that is required.

Nurkse is opposed to freely fluctuating exchange rates. However, this opposition seems to be founded in very large part upon a belief that the difficulties of the 1930's are inherent in any system of free exchanges. It is one thing to condemn, as one must, exchange fluctuations which are the consequence of widespread internal instability, and of consequent speculation in, and flights from, particular currencies; and it is quite a different thing to condemn, as one need not, such exchange fluctuations as would occur under conditions of internal stability. It is more than a little anomalous to condemn fluctuating exchange rates under conditions which a system of fixed exchanges could not survive.

It is doubtful that fluctuating exchanges, under conditions of internal monetary stability, would create an undue discouragement to trade; or that they would be disequilibrating under the same conditions. And it is beside the point to contend that exchange fluctuations "involve constant shifts of labor and other resources between production for the home market and production for export" (p. 210). Gold flows under an international standard

operate in precisely the same way if they are permitted to have their "normal" effects. But in the case of gold flows the adjustment must come by way of a change in domestic prices, including wage rates, whereas with free exchanges the necessary adjustments can be obtained largely by means of changes in the prices of international goods. The important consideration is that the latter prices are more flexible than wage rates.

However, Nurdse does not ignore the need for internal stability. He repeatedly asserts that stable domestic conditions are necessary if international monetary relationships are to be satisfactory. An alternative statement is frequently made to the effect that "synchronization" of internal policies by the various nations is needed. The reviewer would prefer to place the emphasis exclusively upon internal monetary stability, rather than synchronization; but this is not a matter of importance, since the appropriate monetary policies in all nations would mean a near approach to continuous equilibrium with full employment, granted a reasonably flexible price system. Thus internal policies would automatically be synchronized.

Exchange control, and more particularly exchange rationing, are, of course, compared with tariffs, import quotas, and bilateral trade agreements as devices for the implementation of national monetary and commercial policies. However, if there is exchange control, it will be the undervaluation of the domestic currency that is significant rather than the fact of control. It is also pointed out that exchange rationing need not be discriminatory, although it usually is.

There are numerous statements to which the reviewer would take exception. It is said that "regulation of the quantity of money has proved relatively ineffective even in steadying the level of prices" (p. 106). There is little evidence to support this statement. There was no serious attempt to prevent the decline in the volume of money in the United States for nearly three years following the beginning of the depression in 1929. Before we can say that regulation of the quantity of money "has proved" ineffective we must make an attempt at such regulation.

It is stated that "it is essential for a currency system . . . to adapt itself continually to economic change" (p. 191). This is a plausible but misleading point of view. The one thing that is needed in the currency system is publicly announced definiteness and stability of policy. This we do not have and never have had.

It is asserted that "foreign long-term lending is another essential prerequisite for the successful operation of a stable international currency system" (p. 202). On the contrary, stability is entirely compatible with a complete absence of foreign lending. Consistently with the stated point of view, some method of governmental guarantee of foreign investments is commended (p. 205). This may be a debatable question, but the reviewer would emphatically take the negative side to defend. The further conclusion, however, that fluctuations in foreign lending should be avoided is both valid and important.

The material in this work is ably presented and informing. The authors reveal an intimate and discerning knowledge of monetary and commercial affairs in a large number of nations. Their book will be a welcome discussion

of the many problems with which it deals to one who has either not the time or the inclination to inform himself of the wide range of specialized knowledge required for a work of this kind.

LLOYD W. MINTS

University of Chicago

British Colonial Theories, 1570-1850. By KLAUS E. KNORR. (Toronto: Univ. of Toronto Press. 1944. Pp. xix, 429. \$4.20.)

Colonial theories from 1570 to 1776 were dominated by mercantilist doctrines; and the "Old Colonial System," which carried out these doctrines in the field of policy, became one of the main objects of attack by Adam Smith and his followers in their assault upon the whole mercantilist structure. In this interestingly written book is brought together, classified, and interpreted the massive literature which in the main tells the story of the rise and fall of mercantilistic thinking on the subject of colonies. The study is not limited to the economic aspects of colonial theories, nor indeed to mercantilism and antimercantilism alone, but is as comprehensive as the title implies (except that theories concerning India and Ireland are excluded) in covering the whole battery of colonial issues—political, social, and moral—even including a note on the romantic flights of thought of the Lake Poets.

In broad outline the material is arranged chronologically, with Part I (one hundred and fifty pages) devoted to the mercantilist period; and the remainder—the larger portion—to the breakdown of mercantilism and the concurrent reorientation of attitudes toward colonies. The organization of each part is largely topical: the discussion is arranged by types of arguments for and against colonies; by analyses of outstanding writers such as Adam Smith, Josiah Tucker, Bentham, James Mill and Ricardo; by summaries of schools of thought such as the Dissenters and the Manchester School; and by reviews of typical discussions such as those on the sugar duties and the timber duties in the early nineteenth century. An advantage of the arrangement of the book is that the reader can very easily follow the ebb and flow of thought on any particular issue, such as, for example, the question of colonies as a means of relieving population pressure.

Each of the accounts of the two main eras is prefaced by an excellent summary of the ideological environment in which colonial theories were generated. These accounts bear the imprint of the original research which went into the entire work. For example, the author makes a contribution to the question debated by Heckscher and Viner as to the relative importance and compatibility of "wealth" and "power" as goals of mercantilism and of *laissez-faire*. Heckscher's conclusion was that the mercantilists stressed power more than wealth while in the later period the two objectives changed places and were sometimes seen as conflicting ends. Viner took the stand that there was no substantial difference between the two periods on these matters. In both periods both were ultimate and harmonious goals. The writer of this book appears to accept Viner's view in regard to the relative

importance of the two goals in each period, but in respect to the question of conflict between the two aims he finds that "during the post-mercantilist period there was an increasing tendency to assume that power was largely attained at the expense of wealth." He clarifies the discussion by pointing out that the mercantilist and the liberal conceptions of "wealth" were undoubtedly different. To the mercantilist wealth meant riches for the ruling class, while to the liberal the concept was one of general welfare in a consumer-orientated economy. Is it not perhaps also true that in the earlier period "power" had an aggressive connotation whereas in the *laissez-faire* philosophy its connotation was defensive?

Mr. Knorr's study shows how faithfully the main principles of mercantilism—as depicted in the works of Viner, Heckscher, and others—were reflected in colonial theories. His exhaustive overhauling of the original sources also furnishes for the first time completely adequate support for the main conclusions of other existing discussions of colonial theories with which, in the main, this writer concurs. At particular points he takes issue with such accounts and is able to make a convincing settlement of the questions involved. As regards the *laissez-faire* period, his work is an outstanding contribution in a field in which little of a comprehensive nature has been available hitherto.

The author has set himself at every point the task of weighing carefully and ranking the various strands of thought according to their importance in influencing the main current of ideas and prevailing policies. He also attempts to distinguish between genuine arguments, rationalizations, and the whitewashing of special interests by appeal to accepted symbols and shibboleths such as the glory of God and of King.

Before the Civil War, colonies were valued primarily as secure sources of raw materials, as markets, and as outlets for excess population. The sincerity of the urge to christianize the natives is questioned though reference to such considerations is conspicuous in the literature. The full flowering of mercantilism brought changes of emphasis: complementary and regulated colonial trade for the purpose of contribution to a favorable balance of payments became the preëminent doctrine. Emigration came to be considered a "necessary or unnecessary evil" reducing one of England's sources of wealth, namely, the employable population. With the publication of the *Wealth of Nations* and the American War of Independence there occurred, of course, a revolutionary change of opinion which gradually widened its influence and, uniting with the practical interests of the rising manufacturing class, resulted in the collapse of the old imperial commercial policy. The leaders of the liberal movement, in addition to pointing out the uneconomic nature of trade restrictions, stressed the costs of empire and saw colonial systems as breeders of international friction and war. In the strictly economic sphere there were interesting discussions involving the wage-fund theory, according to which the flow of capital to colonies reduced the domestic employment fund. Opponents of this view (Wakefield, Torrens, Buller) argued that, on the contrary, Britain suffered from a superabundance of capital, a condition which, according to Mr. Knorr, the Ricardian economists thought to be impossible.

The nineteenth century witnessed, in addition to the rise of economic liberalism and its associated ideas, other interesting developments of thought. Mr. Knorr describes the recrudescence, in much more sophisticated form, of arguments in favor of migration, by both advocates and opponents of empire, which were engendered by the writings of Malthus and the first British censuses. In this connection the important distinction between overseas settlement and colonial dominion was brought out.

The usefulness of this book might have been increased by the addition of a bibliography. In addition, some readers may agree with this reviewer in wishing for a more explicit and systematic appraisal of some of the theories, at least in regard to their internal consistency if not (since the book is already of substantial length) in terms of the conditions of the period. As it is, the author's opinions of many of the views he discusses lose precision because they are usually conveyed only by implication, through the general tone and choice of language.

This study should have significance not only to students of history and economics but also to those interested in current discussions of colonial problems, specially in relation to international peace and the economic causes of war. As a means of acquiring perspective on such questions, Mr. Knorr's thoroughgoing survey of how men have attempted to deal with these problems through three centuries of essentially modern history should be very valuable.

MARION R. DAUGHERTY

Washington, D.C.

History of Rubber Regulation, 1934-1943. Edited by SIR ANDREW MCFADYEAN. (New York: Norton, for the International Rubber Regulation Committee. 1944. Pp. 239. \$3.25.)

Tea Under International Regulation. By V. D. WICKIZER. (Stanford University, Calif.: Food Research Inst. 1944. Pp. vi, 198. \$2.50.)

Report on Cocoa Control in West Africa, 1939-1943, and Statement on Future Policy. ([London:] British Colonial Office. Cmd. 6554. 1944. 3d.)

Sir Andrew McFadyean has been a member of the International Rubber Regulation Committee and his history of rubber regulation is a brief for that essentially Anglo-Dutch committee. The book does not conceal the committee's failure to keep the price of rubber steady, nor their failure to eliminate inefficient producers, nor their reduction of rubber stocks to a dangerously low point after the war began; but the author claims that the committee's decisions were always reasonable and almost always wise, and that "it can at least be affirmed that neither effort, nor goodwill, nor essential honesty, . . . was ever lacking."

It is a disturbing book. It tends to establish the point that no matter how well-intentioned and well-informed the manipulators may be, prices of industrial staples cannot be kept reasonably stable by controlling supply and trying to outguess changes of demand and of speculative dealings. It impresses the reviewer with the improbability that we shall be able to coöperate with the English, Dutch, etc., with whom we have to coöperate—those

responsible business leaders and civil servants who can undeviatingly pursue self-interest or local interest (to some extent enlightened long-run interest) while complacently believing that they are giving full satisfaction to public interest. The New Feudalism, government of the producers, by the producers and for the producers, is upon us; and our economic techniques and our political machinery for safeguarding the rights and interests of the consumers are perhaps not more developed than were the instrumentalities for controlling the robber barons in the thirteenth century.

There are some who are planning a Magna Carta of the Consumer, a charter which they hope will convert the New Feudalism into a beneficent institution. Their coöperation tends to hasten the advent of the New Feudalism, but it remains doubtful whether this generation will see their proposed restrictions embodied in any charter enforced internationally, as it must be enforced to operate effectively in this field. On the other hand, history seems to record that for many generations the principles of Magna Carta in fact operated in favor of the barons against the King but had no effective application in favor of the people against the feudal barons.

Dr. Wickizer has followed his book on the world's coffee economy¹ by an equally competent study of the tea industry. He brings out the individuality of the product and the advantages which it presents to those controlling it. The demand is steady and the supply is naturally steady, and it can be further adjusted by fine or coarse plucking. On the other hand, tea cannot be stored for extended periods, and it takes years to develop new plantations, so that there are likely to be periodic oversupplies. Perhaps in higher degree than in other crops, tea is divided into many kinds and grades, but the tea-control dating from 1933 ignores these differences. Different districts produce different teas but the grades at least may change or be changed over a period of years, and perhaps there are greater elements of doubt in a time series of price comparisons than the author admits.

The tea-control has been relatively successful in maintaining steadiness of price and the price has not become exorbitant. It has been, compared to others, a successful control, and, under the present committee, a relatively "good monopoly"; possibly, as the author suggests, in part because the British are the chief consumers as well as the leading producers. But it has maintained the inefficient producers in business, and Dr. Wickizer is perhaps not sufficiently critical of it, notably in regard to the reverse dumping practiced by the Indian branch of the industry. Beginning in 1933 tea was sold in Calcutta for consumption in India at about half the price at which it was sold for export. This domestic price in 1933 averaged below the average price of the distressful year 1932, but the price for domestic use has continued downward to below 5*d.*, while the export price for 1940 had risen above 15*d.* a pound. Nor is the author critical of the tea propaganda, charging to the consumers up to £500,000 annually to induce new consumers to develop the habit.

¹ See the *American Economic Review*, Vol. XXXIV, No. 2, (June, 1944), pp. 403-08.

The command paper on cocoa discusses the difficulties, losses, and profits of the monopoly control of West African cocoa through four seasons (net profits, £3,676,000). It announces the intent to continue such controls after the war and the readiness of the British government to coöperate in control of the marketing of the world's cocoa. Incidentally it brings out, as do other discussions in this field, how local and imperial civil servants almost inevitably take the side of the colonial producer rather than of the consumer outside. Cocoa well illustrates this general point, for the public finances of the Gold Coast and its social and economic programs are unusually dependent upon the success of the cocoa producers in getting good prices for their product.

Also incidentally, the report discloses that the control committee regularly sold cocoa in New York at higher prices than in the United Kingdom. No defense is made except that they found ruling prices higher in New York to start with. For the last year under review the control, however, adopted a formula which narrowed the gap between these prices (and which if continued will eventually close the gap), not in order to do justice to American consumers but to give the producers the benefit of increased prices in the United Kingdom.

At the present stage of the New Feudalism the organized and dominant producers are aided by their governments and scarcely opposed by the immediate consumers, the manufacturers or processors. The ultimate consumers have little political power and so far have been saved from ruthless exploitation only by temporary, partial and accidental safeguards which cannot be discussed here but which are likely to disappear as the New Feudalism becomes better developed, for example, as it progressively enlists the power of the state to compel all producers to adhere to the restrictive programs.

BENJAMIN B. WALLACE

Washington, D.C.

Public Control of Business; Public Administration; National Defense and War

Cartels: Challenge to a Free World. By WENDELL BERGE. (Washington: Public Affairs Press. 1944. Pp. vi, 266. \$3.25.)

Cartels is a fighting book on a fighting subject, and its appearance at this time, just as the fight is getting nicely under way, is particularly opportune. The author, Assistant Attorney General in charge of the Antitrust Division of the Department of Justice, brings to the fray some 250 pages of persuasive evidence (and exhortation) drawn from the cartel experiences of a dozen or so war industries, so presented and so selected as to exhibit cartel organizations not alone as enemies of the economic order, but as instruments of nazi penetration and as subversive of democratic political institutions. Mr. Berge writes as a prosecutor; he states his convictions (sound convictions, by the way) and supports them. His thrusts are vigorous, not to say impassioned. They are solidly based, however, and well documented; and while the author has made

full use of his very revealing materials he has been careful to direct his assault solely against the institution of cartels, and not to dissipate its strength by attacks on either persons or motives.

There is a real need for this kind of ammunition. Students of cartel problems have done, over the years, a rather exhaustive job of examining the nature and effects of cartel operations both under identifiable existing conditions and under all kinds and combinations of hypothetical conditions assumed for purposes of scientific analysis. For the most part they have concluded that cartels are uneconomic: most cartels under most circumstances tend definitely to promote the underutilization and the maldirection of economic resources. In the meantime, however, international cartels have flourished increasingly and with unabated strength up to (and even this far into) World War II. Indeed, it appears that their extraordinary ability to protect the business interests of all of their members during periods of international conflict, and quite irrespective of the national affiliations of the members, is a prime reason for the formation of cartels.

It is probably the case that the American public has been so acquiescent in its attitude toward international cartels, despite the opposition which it has traditionally displayed to restraints of trade in domestic commerce, because of the "feeling" that "when you deal with foreigners, whatever is good for the industry is good for the country." A stiffening of the American position is not likely to be effected in the near future by further economic analysis, however refined and however embellished by tales of consumer interests sacrificed to the greed of monopolists. But cartels as "tools of Naziism" and as devices of "invisible government" are quite another matter, and it may well be that the reinforcements which Mr. Berge brings forward in *Cartels* are exactly the kind which, if augmented and adroitly employed, will turn the tide of battle.

To be sure, many readers will believe that the tie-up between cartels and the rise of nazi military, political and economic power was fortuitous rather than necessary; that the nazi government relied no more upon cartels than upon other available (and wholly respectable) agencies and institutions, and that American members of cartels were neither more naïve nor powerless in their dealings with their Axis associates than was the American government generally in its foreign relations during the same period. But in this rough and tumble field of controversy readers will not find their scholarly sensibilities too greatly offended by arguments which bear just a slight theatrical tinge, and they are quite likely to conclude that since cartels decided deliberately to play a dangerous game during the past decade they can not now be heard to protest that they are not fully responsible for the results which have actually accrued. And there can be no legitimate escape from the proposition, well documented by Mr. Berge, that cartels have the power—and in conspicuous instances have not hesitated to exploit the power—so to conduct their arrangements and affairs through private treaties as seriously to impair the operations of the national governments of their members during periods of grave national peril.

In determining a definitive national policy toward international cartels—

a task which faces the United States in the months just ahead—the greatest difficulty to be overcome is our lack of positive confidence in the policies which we have traditionally embraced. Our decisions should, of course, be reached in the light of the considered attitudes of other trading nations. But unfortunately there is sentiment abroad in the land which suggests that if the policy toward which the United States inclines is in conflict with that favored by Great Britain, Russia *et al.*, “realism” requires that the United States should surrender its position. This view, on which Mr. Berge does not directly train his guns, has been advanced most notably in recent months by Mr. Milo Perkins (*Harpers Magazine*, November, 1944, pp. 570-578). It is particularly difficult to combat because it admits, openly or by implication, most of the substantive arguments against cartels, but insists none the less that European business men have decided that trade henceforth is to proceed under cartel organization and that, in a world of cartels, opposition by the United States is fantastic and schoolboyish. As a matter of tactics, the argument seems to run, it may be advisable for us to present an apparent advocacy of enforced competition in international trade, but at the first show of strength by the supporters of cartels (who, be it understood, mean to have cartels) we should retire to a prepared line of defense and, thereafter, negotiate for the organization of world trade on the basis of supervised monopolies. Even the world’s strongest commercial power must be “sensible”!

The best way to meet this counsel is to override it by positive action. The case against cartels on grounds of public policy is overwhelming; only under the rarest of circumstances can cartellization be justified, and then only under strict governmental agreement. It is time now for the United States to reaffirm its conviction that international trade must be made free from privately conceived and privately manipulated restraints, to seek to bring other nations to the same conviction, and then, with or without the coöperation of other nations, to *act* on the conviction. World trade can be freed from cartels by competition, and if the assent of other nations to a program of competition can not be obtained, *we can still have competition by competing*. The United States can take the lead in such a fight, and it can go a long way toward winning it single handed. Wendell Berge rather than Milo Perkins has set the proper sights for the trade policy of this nation. “We believe in competition and we are ready to compete,” he writes. As a clear call to action he needed only to add: “and we mean to compete!”

BEN W. LEWIS

Oberlin College

Electrical Technology and the Public Interest. By FRANK J. KOTTKE. (Washington: Am. Counc. on Public Affairs. 1944. Pp. 199. \$3.00; paper, \$2.50.)

The controversy about the functioning of the patent system which has flourished in the United States since the opening sessions of the Temporary National Economic Committee has produced a series of lurid stories about the use of patents by particular companies in particular instances and a con-

siderable but scattered discussion of proposals for patent reform. In the nation's law journals it has evoked several thoughtful articles about the shape of the frontier between patent and antitrust laws. However, neither economic research nor economic analysis has yet been appreciably influenced by this ferment.

Mr. Kottke's book is the only recent attempt to survey the interrelationships among patents, research, technological development, and business activity throughout a whole industry. He has examined the practices not only of the General Electric Company, AT&T, RCA, Westinghouse, Allis-Chalmers and Philco but also of more than forty smaller concerns. His primary source has been interviews with executives responsible for development work in these companies, but information thus obtained has been checked and supplemented by the documentary material available in government investigations, books, and trade journals. Testimony presented to the Kilgore Committee has been ignored, apparently because it appeared too late to be used; with this exception and that of one or two very recent antitrust prosecutions Mr. Kottke appears to have covered the available material.

The focus of Mr. Kottke's attention has been the relationship between patents and technological progress based upon industrial research. He examines the contention that patents help to improve technology by forcing enterprises to compete in development work, by encouraging the introduction of new products where commercial success is dubious, by providing an incentive for inventors who do not contemplate undertaking manufacture, and by bringing about the disclosure of inventions once made; and the opposing contentions that patents involve risks of expensive litigation which destroy the small concern's incentive to invent and disclose, that they have not succeeded in bringing about the disclosure of technological "know how," that they permit and even foster the suppression of new technology, particularly of alternative processes, that they prevent the fullest possible use of new discoveries, and that by suppressing competition they retard technological change.

The complexity of the patent problem emerges clearly in Mr. Kottke's analysis. On the one hand, he finds that "the leading concerns have more to gain and less to lose by a repeal of the patent law than have smaller competitors." On the other hand, he concludes that the patent law accentuates a tendency, inherent in technological change, "to bring the larger firms together and to favor their growth at the expense of the smaller companies." He finds that in the electrical apparatus industries there is a high correlation between the presence of effective competition and the rapidity with which changes have been made that require replacement of substantial amounts of capital equipment. However, he finds that where competition has been most vigorous, technological progress has usually been comparatively small. Radical changes in technology he concludes have been advantageous to established companies and to small concerns.

In discussing recent recommendations for compulsory licensing of patents, Mr. Kottke is uncertain how frequently electrical manufacturers would thereby be prevented from suppressing patents. He thinks there might be some reduction of research incentives in large concerns in so far as these enterprises undertake research to fence in their rivals, but believes that for the smaller

concerns, the principal difficulty would be an increase of the rigor of competition which might impair their ability to finance research activities. He questions whether electrical patents have prevented the appearance of new manufacturers except in the case of incandescent and fluorescent lamps. He expresses concern over the difficulty of determining royalties under a compulsory licensing system, particularly because "a single schedule of royalties would prevent the exploitation of the technology in many limited but useful ways which now are profitable because the patentee is content with a smaller royalty." Mr. Kottke gives vigorous endorsement to the Temporary National Economic Committee's recommendation that patent licenses and assignments be registered with the government.

This book is a substantial and discriminating contribution to an understanding of the American patent system. It is to be hoped that Mr. Kottke will proceed with the project, foreshadowed in his Preface, for similar studies of other great industries in which technological change has been most conspicuous.

CORWIN D. EDWARDS

Northwestern University

The Economics of Demobilization. By E. JAY HOWENSTINE, JR. Introduction by ALVIN H. HANSEN. (Washington: Public Affairs Press. 1944. Pp. 336. \$3.75; paper, \$3.25.)

During the First World War no systematic preparations for post-war transition were made or considered necessary. During the Second World War this country is almost leaning over backward in its endeavor to be ready for reconversion as soon as the last shot has been fired. It is this difference, with all the lessons to be drawn from past experiences for present-day issues, which is the subject of Dr. Howenstine's able study.

The organization of this book is rather unusual. It consists of three parts of which Part I is concerned with coming transition problems at the end of World War II. Part II, which deals with economic transition after World War I, fills 224 pages or the bulk of the book. Part III, the Conclusions, again devotes two-thirds of its space to experiences from World War I, but the final chapter returns to a very brief discussion of transitional problems today. This arrangement may have somewhat confusing effects, especially for college use for which the book is otherwise very well suited. There is also a marked difference in presentation between those parts dealing with World War I and those discussing World War II. The former are far better documented and more specific than the latter, a fact which cannot be fully explained by the difference in materials available.

This is not meant, however, to minimize the merits of the book, which are very considerable. It is superior in two respects to most of the other publications in the field, not excluding studies made by the Bureau of Labor Statistics and the National Resources Planning Board: first, it attempts with good success to discuss economic demobilization in the light of broader issues of economic philosophy, a fact which justifies in large degree the ambitious

title of the book; and secondly, it does not confine itself to a strictly historical approach but compares ably the economic situation in 1918 with that which is expected to exist at the end of the present war. Moreover, it is well written and will greatly interest even those readers who are already familiar with the subject.

The author's judgment about the policy pursued in this country at the end of World War I, while far from flattering, is fair and sound. His indictment of both Congress and the leading business groups is severe and President Wilson also receives a great deal of blame for the failure of the United States to avoid a post-war depression of serious proportions. "If Congress and the President had not failed in their duty to the American people, there is little reason to believe that a depression would have taken place so soon after the war" (p. 299). Moreover, there was a constant contradiction among the philosophies and policies of the various government agencies, for instance between the Buy Now philosophy of the Council of National Defense and the Work and Save policy of the Treasury. The author presents a great deal of detailed evidence for these assertions in such fields as employment policy, the public works program, contract cancellations, the course of prices, surplus disposal, Treasury and Federal Reserve bank policies and the financing of European reconstruction.

Not content with outlining the mistakes made, the author proceeds to an analysis of the underlying economic philosophy which caused them. The results of this analysis are presented in three brilliant chapters on The "Hands-Off" Policy, The Mythology of Natural Forces and The Controlled Market, which are of an even broader interest than the rest of the book, although they will give little comfort to conservative interpreters of the inter-war period. The author points out that "the belief in the efficacy of the natural operation of the forces of supply and demand was one of the major elements in the social climate of the postwar period" (p. 188). The theory of *laissez-faire*, based on the idea of natural rights, had fitted exactly the needs of the rising system of capitalism, but the early development of business controls had undermined the effectiveness of the price mechanism. However, "the country as a whole, though by no means united in its thinking about demobilization and reconstruction, still had implicit faith in the business man's judgment in the economic realm" (p. 191). So had President Wilson, though the author possibly overstates the President's devotion to the *laissez-faire* idea in a strict sense. The business community, according to the author, actually hoped to substitute for the natural forces their own power in a market controlled not by the state but by themselves under a mild federal supervision and without the fetters of an antitrust legislation. "Business men failed to see that their own coöperative controls upset the economic system just as much as those of government or labor" (p. 207).

In the author's view this cleavage between policy and ideology explains largely the actual course of economic demobilization, especially "the constant vacillation between action and inaction . . . with all the disadvantages of halfway measures in both directions" (p. 312). He shows aptly in various specific fields, such as cost-of-living policy, that initial reliance upon natural

forces was followed by improvised emergency measures when the supposed automatism of readjustment failed to materialize or to produce the desired social effects. However, his advocacy of higher rediscount rates after 1918 will be subject to serious doubt in the light of more recent devices of credit policy, especially those of a qualitative character.

Compared with his brilliant presentation of transitional pitfalls after World War I, the author's discussion of present-day problems, while useful and generally sound, has much less to offer and is in part based on secondary sources. His general economic philosophy is of the "compensatory" variety and is somewhat eclectic in its details. Applying this general philosophy to the coming post-war transition, he strongly believes that an immediate withdrawal of government from the economic field would be followed by another "period of planless demobilization with its inevitable consequences of inflation and unemployment" (p. 30). The line-up and discussion of economic tasks ahead, such as demobilization of manpower, cancellation of war contracts, reforms in taxation, etc., will offer few new viewpoints to the expert but will provide a sound basis for post-war studies among college, business and labor groups.

Generally speaking, the book is a valuable contribution to the growing literature about transitional readjustment. The author writes in a forward-looking spirit and is sincerely anxious to help prevent a repetition of mistakes made after the last war; a repetition which might have much more serious consequences in view of the greater magnitude of the task ahead. In this endeavor he may find some encouragement from the progress made in post-war preparations since the completion of the book.

ALBERT LAUTERBACH

Sarah Lawrence College

Transportation; Communication; Public Utilities

Road and Rail: An Enquiry into the Economics of Competition and State Control. By GILBERT WALKER. (London: Allen and Unwin. 1942. Pp. 236.)

Road and Rail Transport in Nova Scotia. By GILBERT WALKER. Reports of the Nova Scotia Economic Council, Vol. VI, no. 48. (Halifax: King's Printer. 1942. Pp. 96.)

Road and Rail is a study in the economics of competition and state control in the field of transportation. It deals with competition between carriers by road and by rail in Great Britain during the period between the two wars.

In Great Britain the railway is the largest carrier of traffic, and road transport comes second. Since the railway enjoys practically a monopoly of the carriage of minerals and heavy freight, competition between road and rail is essentially competition for the transport of "general merchandise," traffic in small lots hauled short distances. The manner in which this competition works out forms the principal theme of the book.

In two introductory chapters the author explains how railway rates and road charges are determined, and points out the different principles that govern.

The basis of the system of railway rates is the "General Railway Classification of Goods by Merchandise Trains." The factors upon which the classification is based (prescribed by an act of Parliament) include value of the goods, bulk in relation to weight, risk of damage, and cost of hauling, but much the most important is value. Railway rates are also fixed by law, subject to periodical review by the Railway Rates Tribunal. They are supposed to be fixed at a level that will permit the several companies under efficient and economical operation to cover their gross costs and also to earn an annual net revenue designated as the standard revenue.

Road charges are made on quite different principles. They are not fixed by law; indeed, they do not even need to be published. There is no legislative requirement that they cover costs plus a standard revenue. As a rule the basis upon which the road haulier fixes his rate is cost to him plus such profit as he can obtain in a highly competitive market. There is no classification as in the case of the railway. The road haulier bases his rates principally on bulk in relation to weight, and not at all on the value of the goods.

From these differences follow important consequences. Since railway rates are based on the value of goods as well as on the cost of carriage, and road charges are based on cost but not on value, railway rates are higher than road charges for the valuable goods and lower than road charges for the cheaper. Road transport thus takes the high-class traffic, and the railway is left with the low-class traffic.

There is another important consideration that governs the distribution of traffic between road and rail. The schedule of standard charges by rail is a mileage scale. Though the rate per ton-mile declines as the distance increases, the standard rate is the same for all hauls of the same length. But the cost of operation is lower on the routes of dense traffic, and higher on the routes of light traffic. The road haulier profits from this situation by concentrating on the routes of dense traffic, leaving to the railway those of light traffic.

As the result of road competition the railways have lost much traffic, but they have not materially reduced their rates. They have believed that they would realize more net revenue by charging fairly high rates on the traffic that can be held even at high rates than could be realized were they to endeavor to recover the lost traffic by low rates, especially since the prohibition of undue preference would compel them to apply generally such reductions as they might make for the purpose of recovering traffic.

Is the competition of road hauliers unfair? No, the author asserts, because the road hauliers use a public highway, for the long-distance hauliers are paying in taxes their "fair" share of highway costs. The unfairness lies in the fact that the railways are required by law to charge rates that cause the more valuable goods and the dense traffic (carried at low cost) to move by road rather than by rail.

There are, in fact, two prices for the transport of a particular shipment: the higher railway rate and the lower road charge. Moreover, under present

legislation this discrimination bids fair to continue, because the expansion of road transport is unwisely restricted by a statutory licensing system.

If licenses are more freely granted to road hauliers, as the author recommends, will the railways then be able to meet their competition? The author believes they will, because as large transport undertakings they can give better service at lower cost. But to meet the more vigorous competition they must be freed of the burdensome legislative regulations with regard to classification, standard charges, etc. Some public control will still be needed, but the objective should be to reproduce as closely as possible the conditions of a perfect market; to coördinate road and rail within a competitive framework.

In a concluding chapter the author offers suggestions as to how this result may be attained. The difficulties are admittedly imposing, but in view of the objections to monopoly he believes every effort should be made to attain coördination without abandoning competition.

Road and Rail Transport in Nova Scotia is a monograph embodying the results of an investigation into road and rail competition in the Province of Nova Scotia.

The conclusions of the author may be briefly summarized. The railways of Nova Scotia have not been prosperous. The primary cause is not road competition, but the thinness of the traffic. Trucks play an important part in transportation, and will probably play an increasingly important part. The railways are essential, however, because the highways are closed to all but light traffic during part of the year. The frost penetrates deep, and when the thaw sets in the highways are unable to support loads in excess of 6,000 pounds. The competition between the railway and the truck is principally for less-than-carload traffic. On this traffic shippers prefer the truck, because the service is better and the charges are lower.

The railways of Nova Scotia assert that highway competition is unfair, because the taxes imposed on trucks are less than the cost of providing a suitable highway. The author analyzes this argument at considerable length, and finds it without merit. Most of the outlay on the highways is an overhead charge, which can not fairly be debited against the several classes using the highways as a "cost." The only part of the outlay that can properly be charged against a given class of commercial users as a "cost" is the direct cost—the additional cost resulting from adapting the highway to the special requirements of that class. This direct cost is low in the case of highways for trucks because truckers, unlike the railroads, share with many others a road that has already been built (or that is going to be built). And the taxes paid by truckers in Nova Scotia more than cover the "direct cost" of providing highways suitable for trucks.

Even though the direct cost of highways for trucks be low, it does not follow that the amount of taxes to be collected should be small. How much should be collected is a matter of policy. In Nova Scotia, so the author believes, transport policy should have two objectives: first, prevent truck traffic from becoming so large as to render the existing highways inadequate; and, second, prevent railway losses from being increased through diversion of

traffic to the truck merely because the truck rate is lower. These objectives can best be attained by raising taxes on the trucks that compete with the railways so as to bring truck rates up to the level of first- and second-class railway rates, the guiding principle being that the railway rate should be restored as the minimum transport charge in the province.

Both works are based on personal investigation in the field. They are interesting and thoughtful; and are commended to serious students of transportation problems.

ELIOT JONES

Stanford University

The Railroads and Public Welfare. By EMORY R. JOHNSON. (New York: Simmons-Boardman. 1944. Pp. iv, 336. \$3.00.)

In this volume Professor Johnson reviews the transportation problem as it developed in the period between the two World Wars. The discussion is centered about the railroads and the difficulties which they encountered. The unsatisfactory financial showing of the railroads during the period is found to have been the result of the depression of the thirties and of the rise of competing forms of transportation. Although the war has obscured these difficulties they will reappear after the war.

Railroad labor and government policy toward railroad labor come in for considerable discussion. Railroad labor is urged to be more coöperative and to recognize that it has an interest in the financial success of the railroad industry; "featherbed" rules are condemned; federal incorporation of labor organizations is advocated. It is recommended that labor organizations be made legally responsible; that railroad strikes be prohibited; that arbitration of disputes not settled through negotiation be made compulsory, and that the decision of the arbitration board be made legally binding.

It is recognized that the financial reorganization of railroads which failed during the depression is necessary and that the reorganizations should be thorough enough to give reasonable assurance of successful operation of the companies in the future. Railroads which have not had to reorganize are urged to use wartime earnings to reduce their indebtedness and to build up reserves.

In the field of rate policy Professor Johnson is favorably disposed toward the establishment of a single freight classification for use throughout the country. He suggests that nearly all articles now rated in the first three or four classes be placed in a single class and charged rates corresponding to third or fourth class rates. This would enable the railroads to carry much high-grade traffic that has been diverted to motor vehicles. Professor Johnson advocates closer adherence to cost of service in rate making as a means of distributing traffic between competing forms of transport according to their relative economy and fitness. The need for adequate revenues for the railroads is emphasized, and a rate policy is recommended which would permit more generous earnings in periods of business prosperity to offset inadequate earnings in periods of depression. In this connection he advocates a limitation

upon the rate of dividends in good years, and also control of the investment of surplus earnings.

Professor Johnson recognizes that a more economical organization of the railroad industry is possible. "There is no doubt that the present costs of railroad transportation are increased by the failure of the railroads to make more joint use of terminal and other facilities, to lessen the unnecessary duplication of facilities, and to minimize circuitous routing of traffic." The failure of the Federal Coördinator to accomplish much along this line is noted, but no way of attaining these desired ends is found. The consolidation of railroads into a smaller number of systems is considered desirable. Consolidation on a voluntary basis is favored, but it is recommended that railroads be empowered to exercise the right of eminent domain to acquire other roads which the Commission has decided should be included in a proposed consolidation. It is recognized that compulsory consolidation of railroads may ultimately be necessary. If this is done, Professor Johnson believes that the grouping should be around the larger and stronger systems now existing, instead of through the creation of regional monopolies.

Coördination of the various modes of transport is continually stressed. The term "coördination" is used both in the sense of coördinated service, or joint services involving two or more modes of transport, as well as in the broader sense of confining each mode of transport to the sphere within which it can render better or cheaper service than others. Although Professor Johnson advocates less competition and more coöperation between the different modes of transport he hastens to add that interagency competition is desirable. What he apparently means is that such competition should be kept within reasonable bounds. Liberalization of the policy toward railroad participation in other forms of transport is favored.

It is repeatedly urged that all forms of transportation be put upon a user basis; that is, that charges should be made, in one form or another, for the use of publicly provided transportation facilities. Tolls for the use of government-improved waterways are accordingly recommended. Professor Johnson is unwilling to accept the finding of the Federal Coördinator that motor transport has paid its fair share of annual highway costs in recent years. This conclusion is reached as a result of deciding that a somewhat larger share of annual highway costs should be assigned to motor-vehicle operators than seemed appropriate to the Federal Coördinator's staff.

Professor Johnson recommends that new waterway projects should be required to pass the test of public convenience and necessity in the same manner as new railroads. Power to determine whether a project is justified or not would be vested in the Interstate Commerce Commission or some other impartial government agency.

Probably any student of transportation will find himself in agreement with many of Professor Johnson's conclusions, recommendations, and judgments, but skeptical of others, and in disagreement with still others. The book is an expression of Professor Johnson's convictions on these matters, rather than a full analysis of the problems considered. On some matters factual material to support the conclusions is inadequate or lacking; on others a

fuller discussion and more closely reasoned analysis is needed to carry the reader along, or to help him in reaching an independent conclusion.

D. PHILIP LOCKLIN

University of Illinois

Agriculture; Forestry; Fisheries

The Food Front in World War I. By MAXEY ROBSON DICKSON. (Washington: Am. Council on Public Affairs, 1944. Pp. 194. \$3.25; paper, \$2.50.)

This book is the result of a study of the materials collected in the National Archives on the food program of the last war as conducted by Mr. Hoover's Food Administration. It begins with a reporting of President Wilson's four-month struggle with Congress before the bill creating the Food Administration became a law on August 10, 1917, and carries through to the period after the Armistice when Mr. Hoover was also Director General of the American Relief Administration, and to the termination of the Food Administration late in 1918, and final plaudits for a job well done.

The only chapters in which most economists will be particularly interested are the first, which describes the setting up of the program, and the last five, which deal, all too briefly, with the methods of control and the accomplishments. Most of the book is taken up with the propaganda directed toward the conservation of food and the need for it. There are separate chapters on the use of the press, the pulpit, the rostrum, the schools and the movies, and on appeals to farmers, the housewives, the Negroes, foreign groups, the manufacturers, the distributors, and the advertisers. The chapter on "The Man with the Hoe" that one would have expected to deal with agriculture's part in the food program, turns out to be a very uncritical chapter on propaganda in the farm journals.

The great emphasis in this book on the propaganda work of the Food Administration reflects, of course, the emphasis which it received in the food program itself. Mr. Hoover set out to win the war on the food front as far as possible by making the people of this country want to do the necessary things. But the method of study was a further reason for the emphasis on propaganda. All the propaganda efforts left their written records, which of course found their way into the Archives. Records of the operations of the various regulatory devices found their way into the Archives only sketchily, if one may judge by this book.

The emphasis in the study is also much greater on the consumption of food than on its production. This is what one would expect in a study based on the Food Administration records only, since the task of getting the food produced was assigned to the U. S. Department of Agriculture and its affiliated branches in the states and counties. Nevertheless, a book purporting to deal with "the food front" in the last war should cover the activities of all agencies in proportion to their importance. Apparently the Archives are not very

complete on the work of the agencies concerned with food production in 1917-19.

It is important to recognize, however, that conservation of food played a larger rôle in the food program of the last war than of this. And this was not mainly by design of any administrator. The United States entered the last war in a year when the wheat crop was unusually short, because of serious crop failure. It was too late to start another crop that year. The only thing to do was to make the existing supply go as far as it would. The potato crop was also short in the spring of 1917. The 1917 corn acreage was large, but only 60 per cent of the crop was merchantable, compared with 85 per cent as normal. The 1918 and 1919 wheat acreages increased, but at the expense of corn. Wheat was short right up to the end of the war and even for a while afterwards. Hogs and cattle were slaughtered faster than they were produced in 1917, so that meat needed conserving as well as wheat. Hog numbers increased only from 67 to 70 million head from 1916 to 1918. The sugar situation became extremely tight in 1918. Much of all this is in decided contrast with the experience in this war.

Neither was the use of persuasion rather than coercion so much by design as indicated in this book. The four-month battle over the enabling act was mainly due to objections to our having a one-man food dictator, and Mr. Hoover had to manage his program so as not to appear like one. Of this he did an excellent job. Nevertheless, the study should have gone further than it does to correct the common impression that persuasion was about all of the 1917-18 program. Much more than six or eight pages should have been devoted to the fifty-fifty order that directed all licensed retailers (the act provided for licensing all food handlers) to require every purchaser of flour to buy an equal quantity of flour substitutes, to the controls exercised over food imports and exports, and to the fact that 8000 violators of the various regulations were penalized by the Food Administration Enforcement Division.

The author presents Mr. Hoover's reasons for opposing the use of rationing and then devotes one paragraph only (p. 183) to pointing out the difference between this war and the last one that made rationing necessary this time but not last.

On the important subject of price control, the complaints of housewives about the high price of flour substitutes are listed, but no analysis whatever is made of the behavior of food prices in the last war as compared with this one, just as there is none of the comparative achievements in food production.

By now, this review should have made clear what this book does and does not do. As a reporting of what one can learn from the Archives about the Food Administration's food program, with little supplementary study of the food program itself, it is commendable. The only criticism that one can make on this score is that the author was himself somewhat seduced by the propaganda which he read, and his critical faculty surely could not have been in full use much of the time. A common device of administrators is to make blanket admissions of mistakes made—after all "mistakes are only human"—

but never state specifically what the mistakes were. This book falls into such a pattern. What the Archives contain on the subject of mistakes is limited to those appearing in the newspaper clippings collected by the Food Administration, and the Food Administration's answers to these. These are reported in a paragraph or two at the end of the chapters.

The four major conclusions which the reviewer has reached after reading this study—these are in no way the author's—are as follows:

1. This war's food program probably has not had as effective propaganda as the last's on the food consumption side, and has suffered from it. The OPA part of the food program has particularly suffered from lack of enough of such propaganda.

2. The ideas which Mr. Hoover developed about how to conduct a food program were admirably suited to the situation then existing. He was indeed the man for the job. As Senator Underwood said, "I do not doubt that the chapters dealing with the great food adventure undertaken by Herbert Hoover will be among the brightest that illumine the pages of our history."

3. These same ideas, however, were not fitted to dealing with the situation which developed in this country in 1930-33. His success in 1917-18 had the effect of infixing these ideas so strongly in his mind that he was not the man for the job needing to be done in 1930-33.

4. Neither would he have been the man to be a one-man food dictator in 1941-45, although he would have handled one major part of it very well.

JOHN D. BLACK

Harvard University

Food. By FRANK A. PEARSON and DON PAARLBERG. (New York: Knopf. 1944. Pp. xi, 239. \$2.75.)

Written between January and June, 1943, in the months when the country was first experiencing consumer rationing of meats, fats, and processed foods, this book would have been reviewed with more zest in those days, when what the authors call "the food muddle" generated more heat than now (January 1945). But the book may seize the spotlight again if crops are poor in 1945 and various types of food shortages become intensified. Long after the war is over it will repay reading as a blunt statement of the beliefs of men who take a dim view of regimentation, planned economy, and price control—in peace or in war.

"This book," the authors say, "is an effort to present our past experience with food, to describe what currently appears to be its more important phases, to survey our national policy, and to present the outlook" (Preface, p. v). Chapter by chapter these approaches are interwoven, though not always closely. Major interest lies—or lay in the spring of 1943—in the description of the then current situation, the survey of policy, and the outlook. Major significance and enduring value lie in the analysis of past (peacetime) experience.

The broad thesis is that to try to hold down prices in wartime and still maintain production is an "insurmountable task" (p. 233). "The simple

solution is to let the price system function . . . any other solution is predestined to fail" (p. 239).

Selected subtitles within chapters will give the character of opinions and the flavor of style: Civilians Get Left-overs; Lend-Lease a Major Cause of Shortage; Deferment Solves Labor Problem; More Tractors Needed; Supplies of Nitrogen Short; Outlook Is for Declining Production; Impending Livestock Liquidation; Stocks of Food are Running Dangerously Low; Civilians Must Learn to Eat Grain and Like It; Nobody Loves the Middleman; All Signs Point to Higher Prices; Black Markets Will Be with Us; Price—An Efficient Administrator.

Yet for nearly two years production has been maintained and price advances much restrained; and the degree of disorder in liquidation of livestock populations has not proved very disturbing. One hesitates to assert that this is the fruit of good national food management. The weather was kind to officialdom in 1943 and 1944; record wheat yields per acre, as in 1944, were hardly the result of official plan or action. Nevertheless, some credit seems due to management, though how much may perhaps become better discernible if the crops of 1945 turn out badly and put management genuinely to the test.

The present reviewer—no lover of regimentation—finds it impossible to believe the appropriate price policy in wartime would have been to leave prices alone. It is true that the provisioning of our armed forces and our allies with food might have been feasible solely through the simple mechanism of set-aside orders. By and large, however, farmers appear to have been provided with sufficient incentives under price ceilings. In the absence of restrictive national policies toward civilian consumption, it seems certain that price rises in some scarce and preferred foods would have worked among consumers an inequity altogether unacceptable to the public conscience, which may not be in this war what it was in 1916-18. In any event, the political influence of labor groups has so risen that such inequities would never have been tolerated.

Looking forward, one may hazard the guess that, when post-war softening of farm prices comes, even the authors of this book may have a good word to say for the food muddling which, bad as it was, lowered the height of the cliff from which prices had to topple.

M. K. BENNETT

*Food Research Institute
Stanford University*

Economic Geography; Regional Planning; Urban Land; Housing

The Decline of a Cotton Textile City: A Study of New Bedford. By S. L. WOLFBEIN. (New York: Columbia Univ. Press. 1944. Pp. 179. \$2.50.)

This is a study of the causes and effects of the economic decline of New Bedford between the wars, and of the various steps taken to arrest this decline. Ever since it gave up its early agricultural pursuits New Bedford has been a predominantly one-industry town. During the first half of the nine-

teenth century it depended principally on whaling and various related trades, but with the displacement of sperm and whale oil by Pennsylvania petroleum for lighting and lubrication, the stage was set for the development of another source of livelihood. This appeared in cotton textiles. Although the first two mills were incorporated in 1846 while the city was still at the height of its prosperity as the whaling center for the country, extensive development of the cotton textile industry did not come until the years 1880-1899, during which fourteen new mills were opened. Between 1900 and 1909, 12 more mills began production and World War I gave an added impetus to the already thriving town.

The 1920's, however, saw a rapid reversal of this trend. During the two decades between the wars the city experienced a precipitous and disastrous decline. The economic well-being of the city was dominated during this period by two forces of essentially national rather than local significance, the southward shift of the cotton textile industry and the general state of business activity. Because it specialized in fine cottons New Bedford did not feel the effects of southern competition as soon as many other New England textile cities. However, the 1920's brought a substantial decline despite the general prosperousness of the country. This decline was, of course, intensified by the great depression in the 1930's.

Dr. Wolfbein reviews the various factors which favored the southward movement of the industry; the proximity of the South to raw materials, the replacement of waterpower by steam and hydro-electric power, in which the South has advantage, the obsolescence of New England plant and equipment, lower taxes and, above all, lower labor costs in the South. High wage rates, unionization of labor and relatively stringent labor legislation weighed heavily against New England. While Dr. Wolfbein admits that the system of family controls and interlocking directorates was a factor in the decline, he believes that it was not a major cause of the trouble. In this connection, he presents some interesting charts showing interlocking directorates between the various mills and banks in New Bedford. Dr. Wolfbein points out that, although the development of substitute fibres has been an important factor in the decline of cotton textiles in general, New Bedford was able to adapt its industry in part to the use of these fibres.

This discussion of the factors causing the southward shift of the industry is quite conventional, adding little to the factual material revealed in previous studies and contributing nothing new to the general theory of location. Moreover, the reviewer is not at all certain that the relation between obsolescence and the shift to the South has been adequately analyzed. A good case might be made for explaining obsolescence as the result of the shift rather than as a cause. Perhaps Dr. Wolfbein puts his finger on the crux of the matter when he points out that poor accounting practice has led to unwise dividend policies which placed the mills in a poor position to finance replacements necessitated by obsolescence. If this is the case, it is financial mismanagement and competition from new areas and new methods which are the root causes, not obsolescence. If New Bedford were an economic area for the industry, it would be reasonable to expect that funds would be forthcoming to replace the obsolete plant and equipment.

The most original part of the study is to be found in Chapter II, which incorporates the results of a survey of employment and unemployment in New Bedford made by the Division of Research of the WPA during the first week in May, 1939. This survey indicated that almost 30 out of every 100 workers in the city were unemployed at that time. The incidence of unemployment was especially heavy among female laborers, young laborers under twenty-one years of age, and old laborers over fifty-five years of age. Unemployment was greater among textile workers than among other worker groups in the city. It was greater among the unskilled than among the semi-skilled and skilled. The incidence of unemployment was greater among the Portuguese and Negroes than among the native and foreign-born white workers. While the average duration of unemployment for all unemployed workers was 14.4 months, the average duration for unemployed workers whose last job had been in cotton textiles was 18.1 months. The average duration of unemployment was greater for the older age-groups than for the younger age-groups. The incidence of unemployment by family was almost as great as the incidence by individuals. One out of every 4 families had no member employed. This meant that as a rule secondary workers in unemployed families found it difficult to ameliorate the plight of the family resulting from unemployment of the primary worker.

The steps taken to solve New Bedford's problem were various but ineffective. The community undertook to advertise its advantages and to develop a diversified industry. Special inducements in the form of low rents and taxes were offered to attract new firms. Tax abatement, RFC loans and loans by labor unions were undertaken to relieve existing firms. But these measures were not sufficient to prevent the flight of the textile mills or to attract new industries. By 1938 other industries had given employment to only about one-fifth of the workers who had been displaced in cotton textiles. Meanwhile more workers had been coming into the labor market in search of work. Migration of workers was not sufficient to take up the slack. In the 1920's, when industry elsewhere was generally prosperous, New Bedford experienced a net decline in population of only about 7 per cent. During the depression of the 1930's migration was retarded so that this decade saw a decrease of only 2 per cent in total population.

The declining community is inherent in any society, capitalistic or otherwise, which admits of economic change. A study of the New Bedford experience could contribute much to an understanding of this phenomenon, the general theory of which has been pretty much neglected. The present study, however, is disappointing in this respect. It gives a conventional summary of the causes of the decline and a static picture of the state of employment late in the process. However, it fails to give a realistic picture of the process of decline itself and of the essentially local factors which were at work. For example, the economist might reasonably ask: How did the workers, managers, and investors react to the decline? What steps did they take to avoid or alleviate its consequences? How did the unemployed acquire the means of subsistence? What were the resistances to migration? Much more might have been said on these and related problems.

In conclusion it should be noted that the New Bedford experience has a contemporary significance. Many one-industry towns developed as a result of the war will eventually face the problems of a decline in their basic industry. Those who are urging today that responsibility for the conversion of our war communities to peacetime activities be left to private enterprise and local communities will do well to ponder the experience of New Bedford and similar towns. Free enterprise, relying on local planning and decentralized decisions, often works slowly and without conscience.

J. P. MILLER

Washington, D.C.

Labor and Industrial Relations

British Joint Production Machinery. Stud. and repts. ser. A., no. 43. (Montreal: Internat. Lab. Office. 1944. Pp. v, 273. \$1.25.)

This study is one of a number published by the International Labour Office regarding the various aspects of wartime labor controls. The study was undertaken to supplement the ILO's report on joint production committees, prepared as documentation for a tripartite meeting of representatives of government, employers and workers of Canada and the United States, held under the auspices of the ILO in February, 1943. The report was prepared by Miss Carol Riegelman, a member of the ILO staff.

The report attempts to analyze the formal arrangements for industry, labor and government consultation and for industry and labor consultation on matters affecting production and labor supply on the national level, the regional and district levels and the factory level. The report is more complete in its discussion of consultation at the factory level than in its discussion of the national or regional and district levels. This is understandable because effective results apparently occur from industry and management joint discussions at the factory level. At the higher levels, management and labor exercise primarily an advisory function. For example, the manpower controls exercised through the National Service Law and Essential Work Orders, which together comprise the backbone of the British control over labor supply, are essentially the responsibility of the government. In these matters, the function of labor and management is limited to advice and consultation, ultimate action being the sole responsibility of government.

At the other extreme is the widespread use of joint production committees, similar to labor-management committees in the United States, which operate at the factory level. The operation of these joint committees is based upon the coöperation of labor and management and is quite independent of governmental intervention but dependent, in part at least, upon government support. The joint production committees attempt to secure from both representatives of labor and management in the plant ideas which will result in conserving the amount of labor necessary for a given job, and in more efficient methods of production.

The setting up of joint production committees has raised the problem of their relationship with other representatives of employees at the factory level. As is the case in the United States, these committees are not intended to deal with questions which are covered by trade union agreements, e.g., wage rates, piece work prices, working hours, etc. Some difficulties have arisen, according to this report, over the demarkation of functions, particularly questions concerning absenteeism and bad timekeeping. In some plants piece work prices have been handled by the joint production committees and in other cases by the committees of shop stewards. On the whole, however, the Report concludes that the different committees have worked together harmoniously.

It would have been valuable and interesting had Miss Riegelman developed the discussion regarding the functions of the joint production councils and of the committees of shop stewards at greater length, giving actual experiences. In the United States, one of the serious problems in the development of labor-management joint activity has been the confusion or unclear demarkation between the handling of disputes in accordance with grievance machinery and the handling of other matters under the aegis of the labor-management committees.

In general, the report lays too much emphasis upon structure and devotes too little space to the actual operating experience of the committees. The reader is not put in possession of the data needed to form his own opinion of the success of the British joint production machinery in developing the fuller utilization of labor, of which Miss Riegelman herself is convinced. The reviewer has the feeling that the joint machinery has often provided a forum at which labor and management can unburden themselves of complaints against each other, or against the government, without necessarily producing curative action. This is not said in a spirit of criticism since the experience in the United States indicates the psychological value in providing just such media for complaints. These complaints frequently condition the thinking and actions of the government agencies concerned.

The report does not deal with the question of the authority or responsibility which labor and management should respectively assume in a democratic society either in a war or a peace economy. True, this is a broad philosophical and political question which falls quite without the scope of Miss Riegelman's report. However, a study of this subject by the ILO would undoubtedly be of interest and value to persons concerned with public policy.

SIDNEY C. SUFRIN

Washington, D.C.

A Short History of Labour Conditions in Germany under Fascism. By JÜRGEN KUCZYNSKI. (London: Muller. 1944. Pp. 228. 9s. 6d.)

The author himself raises the question whether a need exists for his study now that our victory appears to be near. His affirmative answer is justified. Given certain circumstances, some type of fascism may develop anywhere. "The study of Fascism in Germany should sharpen our vigilance in noting its primary manifestations in other places" (p. 1). It may be added that

fascist thinking is unfortunately not likely to disappear from the world with the collapse of the present German régime.

Many readers might, however, fail to agree with Mr. Kuczynski's assertion that "a combination of research with propaganda" is the proper method of dealing with his subject. The result of true research is uncertain until it is completed. Propaganda is precisely the reverse. A doctrine is given first and has then to be spread. Any researcher who attempts to combine both unbiased research and political propaganda will work under a twofold pressure. As a good scholar he will want to find the true facts irrespective of the result. As a good propagandist he will have to achieve the desired result in the quickest and most convincing manner, possibly even irrespective of the facts. It is extremely difficult to do both things and to be simultaneously a reliable researcher and effective propagandist. Mr. Kuczynski's book shows that most clearly.

The first ninety-two of the two-hundred twenty-eight pages deal with "The Structure and Economic Policy of German Fascism" and "The General Economic Policy of German Fascism." They contain the author's general views with respect to capitalism and nazism. This review will be chiefly concerned with that part of the book which deals with "Labor Conditions in Germany under Fascism." It is, however, impossible to pass in silence over the author's conception as to who the real rulers of nazi-Germany are. He still believes that heavy industry is "the decisive section of the ruling class, the dominant section which in fact directs the policy of the State and uses the State as its own instrument" (p. 36), and that "the new ruling class is the result of a marriage between the old bourbons of exploitation and a new generation of gangsters" (p. 41). In reality this marriage existed only for a short time. Each partner's intent from the very beginning was to get a divorce as soon as he had cheated the other out of all his possessions. It was the gangsters who were successful. The "old bourbons of exploitation" now have to take orders from them. At least the most recent events in Germany should have convinced everyone of that.

The often-repeated tale of big industry's power under National Socialism is not only wrong but dangerous. There are still industrialists outside Germany who would not mind a marriage with fascism. It is grist to their mill if they are told that fascism means "a paradise for heavy industry" (p. 52). They should rather be shown that fascism may be as bad for them as for their workers.

The three chapters of the second part of the book discuss German labor conditions in three periods, the first covering the years from 1933 to 1937, the second from 1938 to 1939, and the third from 1939 to 1943. Besides describing the life of the German wage earner in general, the author examines separately for each of these periods a variety of special aspects of labor conditions in Germany, such as employment, wages, hours, restrictions of free movement, accidents and health conditions, social insurance, and foreign labor. Using statistical and other methods of analysis, the author finds that the German worker has become "a slave and serf in many respects, an oppressed

and degraded human being in every respect" (p. 223) and that the living and working conditions of foreign workers in Germany are even worse.

Precisely because this is correct it is unfortunate that the author repeatedly presents material as evidence which is not best suited to verify this truth. Since ample unimpeachable proof exists, manipulating weak evidence until it looks a little stronger should and could have been avoided. The book would have gained if more consideration had been given to factors of more conclusive force.

There is, for example, the very controversial question as to whether German real wages have decreased. Mr. Kuczynski, combining somewhat bold statistical methods with considerations usually not applied in analyzing real wages, apparently finds that they have declined. He himself, however, seems not too sure of the accuracy of his result. At one point he remarks that "the study of wages here is not very fruitful," and turns to a discussion of the fact that, owing to scarcity and deterioration of all commodities, the worker cannot buy much with his wages. This is, however, a different question. Besides, it would seem to be a war problem which has plagued workers outside Germany also. A critical reader who is eager to learn something about the typical shortcomings of National Socialist labor policy will not feel too happy in reading the author's analysis of German real wages.

Mr. Kuczynski's "Story of the Life of the German Worker Based on the Annual Reports of the German Factory and Mine Inspectors," to give one more example, is equally unsuitable to prove irrefutably that the nazi system has suppressed labor. The author presents an extensive survey of cases of grave exploitation of workers which were uncovered and brought to the attention of the proper government agencies by the factory and mine inspectors. The reports were published by the Reich Ministry of Labor; the culprits were punished. Would it not be easy for Mr. Goebbels in reply to claim credit for the Nazi officials who have continued to take the legal steps provided by the pre-nazi laws? It would be false pretense, indeed, but this round, quite unnecessarily, again would go to Mr. Goebbels.

The book shows how labor conditions have deteriorated in Germany since 1933. But, in contrast with the nazis, we can afford to be frank in our appraisal. Fair consideration in the calm atmosphere of scientific research compels us to realize that war exigencies have forced many belligerent governments to take measures for solving manpower and production problems which are similar to some of those taken by the nazi government and which the author characterizes as typical expressions of fascist policy. In this respect Soviet Russia went farthest of all United Nations—Soviet Russia which, according to the author, "is the inspiration of every progressive movement" (p. 99). All belligerent governments have been confronted with similar war-production problems. There were in many countries, at times, similar shortcomings in labor conditions, such as excessively long hours, as are considered by Mr. Kuczynski "typically fascist." Democratic governments, too, have been compelled to restrict the free movement of labor, to undertake extensive manpower control, and to take some other steps which are counts in the author's

indictment of German fascism. Nothing can be gained by passing in silence over these well-known facts. On the contrary, mentioning them makes the case against totalitarianism stronger. It offers the opportunity to show particularly convincingly the difference between fascist and liberal policy, even where similar measures are taken under the two systems.

To begin with, these measures are temporary exceptions in liberal systems. It would, however, be difficult to tell German temporary war measures from permanent typical nazi methods. Besides, any attempt to do so would be superfluous. As Mr. Kuczynski rightly states, fascism leads to a state of war before war has actually broken out. Fascism develops with increasing rapidity into a society of war with the world (pp. 170-71). As contrasted with democratic nations, the worker in a fascist country always works under wartime conditions. It is true that the outbreak of a war does not imply a radical change in the conditions of the workers in a fascist country (p. 187). Worse than that, it is equally true that "peace" does not bring liberal peacetime conditions and freedom.

Furthermore, fascism, at least the German type, has not brought any new ideas. It is rather a new technique of carrying through more ruthlessly ideas which existed in Germany long before the nazis came into power. The workers were among the first who had to suffer from the ruthlessness of the new techniques. Even where other countries have temporarily taken steps which are comparable to German measures, it is the manner and the degree in which they are carried through in Germany that makes them a crime against humanity.

Finally and above all, no matter what the conditions of work might at any time be under a nazi system, labor has no voice in determining them. In a democracy wartime regulations are created and their execution supervised by the elected representatives of the people. Totalitarian governments are not elected by the people and lay down the law in war and peace without being responsible to constituents. Under such a system the workers are in the worst situation. They have not only to take orders from the government without any possibility of redress, they have also to obey the employers, likewise without any possibility of complaint. This situation is not alleviated by the fact that the boss, too, has to follow orders. All the elementary liberties of labor vanished and "the full darkness of tyranny descended over Germany" (p. 96). The author avoids raising the question how far German workers have, by action or inaction, helped nazism into power or to what extent they may not object to their situation under fascist rule. We know that we do not like fascism. The material contained in the book confirms our position, although the accuracy of the author's research and the effectiveness of his propaganda methods may be questioned.

KURT BRAUN

The Brookings Institution

Social Insurance; Relief; Pensions; Public Welfare

Veteran Comes Back. By WILLARD WALLER. (New York: Dryden Press. 1944. Pp. xiii, 316. \$2.75.)

This is a general treatise on the American veteran of World War II, written in a popular vein and for the benefit of the veteran, his parents, his wife or his sweetheart. Its principal objective is "to present and to illuminate the veteran problem, and to explain the veteran's mental and emotional nature and the problems in the way of his readjustment in society" (p. 15) to "a general audience" (p. 272). Its major thesis is that the veteran presents, because of his unusual and antisocial experiences of training for and service in actual combat duty, a major problem upon his return to peacetime living. This problem is presented as one of the most important, if not the most important, problems before the nation today.

The book is set forth in four parts. Part I presents the veteran of today, remade from a member of civilian life, and points out the unnatural conditions that surround the member of the nation's armed forces which require him to be cruel and at the same time merciful, and to accept an entirely new code of morals. Part II pictures the veteran returned to an alien homeland; a former soldier or sailor who is bitter, confused, and often occupationally or physically disabled; one who has learned a camaraderie on the sea and battlefield and who is therefore potentially politically powerful. Part III reviews our past efforts to cope with the veteran problem, and attempts to measure the past failures to help the veteran adjust to civilian life. Part IV outlines the objectives of the veteran's program, and suggests, in a general fashion, some ways in which the national, state and local governments, civilians at large, and the family itself, can help the returning veteran make the adjustments necessary to civilian peacetime living at lowest social costs.

The author concludes that

The cost of solving the veteran problem will undoubtedly be high. The cost of not solving it will be immensely higher. If we neglect our veterans, we shall pay for our heartlessness in a thousand different ways. Not one of us will be able to escape the impact on our own personal lives of the mass misery of millions of maladjusted veterans. Like disease, this misery will permeate the air we breathe and it will reach us in mysterious ways; no one will escape it. If their needs are unsatisfied, the veterans of this war may become an extremely dangerous political group. If we do not rehabilitate our veterans, we shall certainly have to pay immense sums for pensions, bonuses, and other useless handouts from which no one will derive any benefit. If, in the years immediately after the war, we do not give the veterans what they need and have a right to have, they will in later years force us to pay a heavy price for our thrift (p. 304).

Rather black prospects these!

There can be little argument that the veterans present a serious problem to the nation, and Dr. Waller has rendered a service to one type of American audience by presenting a statement of this problem in simple, general terms.

The book, admittedly, is for lay consumption only. The student and scholar will find little, if any, value in it. It contains no original source material. Quotations from other works on problems of the veterans are long (*cf.* quotations beginning on pages 33, 65, 78, 83, 89, 94, 96, 100, 101, 115, 121, 131, 134, 136, 152, 154, 162, 174, 200 and 226, which extend beyond one page). The text at spots is boringly repetitious (*cf.* pages 66, 149, 187, 213, 221, 238, 267 and 294 for example, where points made or data presented have been previously set forth). It contains many questionable generalities (*cf.* pages 81, 84, 111, 151, 190, 206, 208, 211, 213, 225, 296, 299, 302, 304, 307 and 308). and statements made without source references or annotations (*cf.* pages 78, 83, 89, 96, 107, 126, 166, 223, 228, 256 and 301). Typographical errors have crept into pages 20, 30, 119, 131, 229, 254 and 255, and possibly others as well. The methodology employed in the study seems to be especially weak to one who is accustomed to a quantitative approach in the analysis of economic and social data.

Perhaps the most serious defect of the book, from the point of view of those within the fields of economics, sociology and social welfare, if not from the point of view of the general reader, is the absence of specific reference to the present program for World War II veterans and their dependents, and the omission of a critical analysis of such a benefit program in terms of the basic needs of returning veterans and their families.

No doubt many of these veterans and their dependents will continue to remain confused by the miscellaneous assortment of benefits under the G.I. program in the face of the many needs which the author has developed and emphasized. We may hope for the appearance in the not too distant future of works which will fill this badly needed gap, not only for the general reader, but for the specialist and student as well.

PAUL A. DODD

University of California

Consumption; Income Distribution; Coöperation

The National Income of Jamaica, 1942; The National Income of St. Vincent, 1942; The National Income of Barbados, 1942. By FREDERIC BENHAM. Development and welfare in the West Indies, bulls. no. 5, 8, and 9. (Bridgetown: Advocate. [1944.] 10¢; 5¢; 10¢.)

In recent years the official American and British national income estimates have been presented in the form of a set of interrelated tables with thorough annotations to each component item. Dr. Benham uses the same form of presentation successfully in his three studies on the national income of some islands in the West Indies. The Jamaica and Barbados surveys contain tables on national output and national income and expenditures, as well as a size classification of the taxable income of individuals. The Barbados paper offers

also data on the value of various kinds of national assets and some figures on savings.

The backbone in each of the three studies is an estimate of the value of final output. It consists, in the case of Jamaica, of eight main items (subdivided into some ninety subgroups) comprising exports, foodstuff for local consumption, manufactured goods for local use, services rendered by the government, other services, house rents, and new construction, with estimated repairs and replacement deducted. The arrangement does not immediately provide a table of values added in the various industries, since exports are separately recorded, some agricultural products (such as sugar) appear under manufacturing, and domestic values prior to the retail stage are unavailable. The procedure is dictated by the deficiency of data, and an—admittedly rough—estimate of the value of agricultural output and the values added in manufacturing, transport and distribution compensates for these shortcomings.

The reports are straightforward, with conceptual discussions reduced to a bare statement on the income terms used, and “anybody who prefers a different definition can make the necessary adjustments.” In at least one instance such adjustment seems desirable.

Of the three reports, the one on Jamaica is the most detailed. Since no census figures exist, since the income tax reaches only a few thousand individuals and since household budgets are scarce, the three totals on income, output and expenditures are, of course, not independently arrived at and are not intended to serve as mutual checks. They all stem from a table on the “value of production” which adds together retail values of goods produced for local consumption (net of imported materials, indirect taxes and an equivalent for depreciation), imputed rents, services (government and private), exports and net investment in fixed assets. The values of food production for domestic purposes are with few exceptions derived from retail prices per unit and consumption per head of a sample population. The approach suggests itself in view of the lack of accurate production data, although it is a measure of national expenditure rather than of output. Retail prices are either recorded market prices, or estimated market prices (for the country districts) or prices “growers could have obtained” in the market for produce domestically consumed.

Net income from abroad added to this value of production supplies a final figure for net national output of £33.3 million. By deducting profits (taken from income tax statistics) and rents from this total, Dr. Benham derives a figure for wages and salaries (plus income of small settlers) and thus a national income breakdown by distributive shares. Finally the same total is subdivided, in a way which leaves some doubt, in order to show “how the national income is spent.” National expenditures appear as the sum of consumers’ expenditures on goods and services (of necessity a rearrangement of figures used as output for home use, adjusted for imports), direct taxes and an item for new construction and new machinery.

Since income payments to individuals can be regarded either as the sum of consumers’ expenditures on goods and services, direct taxes and personal sav-

ings, or as net national income plus transfer payments after deduction of undistributed corporate profits, it follows that national expenditures can be expressed as the sum of consumers' expenditures, direct taxes, total corporate and personal savings minus transfer payments. Total savings again are equal to home and foreign investment plus budget deficit. Only if the sum of foreign investment and budget deficit should equal transfer payments would the inclusion of an equivalent of new construction and machinery in the expenditure table seem justified. No sufficient information appears in the text to support this assumption.

There is, in particular, no figure on the budget deficit, which would have clarified the issue. Occasional references appear on total government spending, on excise taxes and direct taxes. Services rendered by the government are a component of the output table. They exclude correctly all transfer payments and some other government expenditures which appear elsewhere (public works, communications, government printing). They include some unexplained entries called "subventions" and quite generally do not differentiate between services to final consumers and intermediate services.

Methods for the income estimate of Barbados are similar. But the value of food production is established on the basis of output instead of consumption data. A slight inconsistency arises in the treatment of maintenance of roads in the government service item. It is included in output, while omitted in the Jamaica estimate. Incomes of persons not subject to income tax are separately estimated, on the basis of number employed and average wages received by types of workers, adjusted for periods of unemployment. The result checks reasonably well with the national output figure.

The data for St. Vincent are limited to net output.

Altogether the three surveys are highly skillful, competent and workmanlike jobs. Not very often in the history of national income estimates have economists owed to an author so much information from so little statistical raw material. The gratitude would not suffer if the author's view that the total for Barbados is "correct within the remarkably narrow margin of one per cent" should turn out to be overoptimistic.

ERNEST DOBLIN

Washington, D.C.

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- FAIRCCHILD, H. P. *Postwar population problems*. Soc. Forces, Oct., 1944. Pp. 6.
- GALLARDO, M. A. and MAGAÑA, M. T. *La asistencia del parto en El Salvador*. Estad., Sept., 1944. Pp. 7.
- GOOD, D. *Some recent studies of population*. Geog. Rev., Jan., 1945. Pp. 10.
- GRABILL, W. H. *Effect of the war on the birth rate and postwar fertility prospects*. Am. Jour. Soc., Sept., 1944. Pp. 5.
- HAUSER, P. M. and TEPPING, B. J. *Evaluation of census wartime population estimates and of predictions of postwar prospects for metropolitan areas*. Am. Soc. Rev., Oct., 1944. Pp. 8.
- KOHN, C. F. *Population trends in the United States since 1940*. Geog. Rev., Jan., 1945. Pp. 9.
- LASKER, B. *Population prospects for Japan*. Far East. Survey, Dec. 13, 1944. Pp. 4.
- . *Population shifts in southeast Asia*. Far East. Survey, Nov. 1, 1944. Pp. 5.
- MORTARA, G. *Estimativa do número dos centenários no Brasil em 1940 e análise comparativa internacional da apuração dos centenários pelos recenseamentos*. Estad., June, 1943. Pp. 29.
- . *Estudos de demografia interamericano*. No. 2—*Tábua de mortalidade e de sobrevivência para a Colômbia (1939-41)*. No. 4—*Tábua de mortalidade e de sobrevivência para a cidade de Lima (1933-35)*. Estad., Sept., Dec., 1943. Pp. 24, 7.
- . *A riddle resolved: Brazil's population*. Estad., Mar., 1943. Pp. 6.
- REIKICHI, K. *The population of the prefectures and cities of Japan in most recent times*. Far East. Quart., Aug., 1944. Pp. 29.
- SPENGLER, J. J. *Pareto on population, II*. Quart. Jour. Econ., Nov., 1944. Pp. 27.
- TAEBER, I. B. *The development of population predictions in Europe and the Americas*. Estad., Sept., 1944. Pp. 24.
- TRUESDELL, L. E. *The population census of Puerto Rico*. Estad., Sept., 1943. Pp. 7.
- YOUNG, C. W. *Observations relatives à la population de la republique d'Haiti*. Estad., Sept., 1943. Pp. 5.
- WOOLSEY, T. D. and LINDER, F. E. *The analysis of current mortality in the United States through the use of sampling*. Estad., Sept., 1943. Pp. 11.

Unclassified Items

- CALKINS, R. D. *A challenge to business education*. Harvard Bus. Rev., Vol. XXIII, No. 2. Pp. 13.

- COOKE, M. L. *On some commanding aspects of the American man of business*. Adv. Manag., Oct.-Dec., 1944. Pp. 7.
- DRUCKER, A. *Is law an economic strait-jacket?* Trusts and Estates, Oct., 1944. Pp. 3.
- HUTT, W. H. *Plan for economic research in the Union*. South Afr. Jour. Econ., June, 1944. Pp. 20.
- LONIGAN, E. *The professors versus the people: comment*. Am. Econ. Rev., June 1944. Pp. 3.
- PEGNUM, D. F. *Economic contributions of the United States to civilization*. So. Econ. Jour., Oct., 1944. Pp. 12.
- POLLOCK, J. K. *A territorial pattern for the military occupation of Germany*. Am. Pol. Sci. Rev., Oct., 1944. Pp. 6.
- SAUNDERS, L. *A bibliography of social and economic conditions of highland Bolivia*. Bol. de Inst. de Inves. Soc. y Econ., July, 1944. Pp. 22.
- SOLLMAN, W. F. *Military occupation and German revolution*. Am. Pol. Sci. Rev., Oct., 1944. Pp. 5.

NOTES

On January 5, 1945 the Director of War Mobilization and Reconversion requested the cancellation of all large conventions and group meetings. In compliance with this request and after careful canvass of the situation, it was decided to cancel the meetings to be held February 1-4 jointly with the American Political Science Association and the American Society for Public Administration.

The following persons have recently become members of the AMERICAN ECONOMIC ASSOCIATION :

Abramovitz, Mrs. M., 6601 14th St. N.W., Washington, D.C.
Adams, E. G., Industrial Development Bank, 201 Notre Dame St. W., Montreal, Canada.
Anderson, Mrs. P. H., 1228 Blair Mill Rd., Apt. 101, Silver Spring, Md.
Andrews, D. K., 181 Indianola Ct., Columbus 1, Ohio.
Andrews, P. R., Prentice-Hall, Inc., 70 Fifth Ave., New York 11, N.Y.
Aries, R. D., 4700 Sansom St., Philadelphia 39, Pa.
Armstrong, C. M., 8 Jordan Blvd., Delmar, N.Y.
Arrow, Miss A., 749 West End Ave., New York 25, N.Y.
Aspinwall, R. S., 439 Selden Ave., Detroit 1, Mich.
Atkisson, J., Box 722, Rt. 2, Sanger, Fresno Co., Calif.
Badgley, L. D., 256 Prospect St., South Orange, N.J.
Balabanis, H. P., Humboldt State College, Arcata, Calif.
Barnes, L., 801 West End Ave., New York 25, N.Y.
Becker, A. P., School of Business and Econ., Eastern New Mexico College, Portales, N.M.
Belman, Mrs. C. D., 416 33rd St. S.E., No. 2, Washington 19, D.C.
Bengür, A. R., 2202 Massachusetts Ave. N.W., Washington, D.C.
Bernstein, Miss D. B., 35 W. 92nd St., New York, N.Y.
Blake, J. H., Glenn L. Martin Co., Baltimore 3, Md.
Blumberg, A. J., 6800 Dartmouth Ave., College Park, Md.
de Boor, Miss J., 26 E. St. Clair, Cincinnati, Ohio.
Brown, H. B., Jr., University of Mississippi, University, Miss.
Bruner, Miss N., 7511 Main St., Kansas City 5, Mo.
Burns, Mrs. W. T., Excelsior, Minn.
Burstin, H., 570 Isham St., New York 34, N.Y.
Cassidy, E., 5912 14th St. N.W., Washington 11, D.C.
Cassidy, Rev. J. K., Loras College, Dubuque, Iowa.
Caulfield, Lt. H. P., Jr., 1660 Lanier Pl., Washington, D.C.
Christelow, A., c/o British Civil Secretariat, Box 680, Benjamin Franklin Station, Washington, D.C.
Churchill, A. M., 2491 S.W. Sherwood Dr., Portland, Ore.
Clark, Mrs. S. B., 2728 Porter St. N.W., Washington 8, D.C.
Colbjornsen, O., c/o Norwegian Embassy, Washington 7, D.C.
Coogan, Rev. T. F., Catholic University of America, Washington, D.C.
Das, R. K., 3200 16th St. N.W., Washington, D.C.
Dauten, C. A., School of Business, University of Arkansas, Fayetteville, Ark.
Drake, L. A., Philadelphia Transportation Co., 1405 Locust St., Philadelphia 2, Pa.
Draisner, A. M., Room 332, Southern Bldg., Washington, D.C.
Dworetzky, J. H., 5909 Myrtle Ave., Brooklyn 27, N.Y.
Ellsworth, H. M., Safeway Store, P.O. Box 660, 4th and Jackson Sts., Oakland 4, Calif.
Emelianoff, I. V., 2707 Adams Mill Rd., Washington 9, D.C.
Epstein, Miss B., Gadsden Hall 119, 30 Plattsburg Ct. N.W., Washington 16, D.C.
Farioletti, M., 4822 3rd St. N., Arlington, Va.

- Fautz, Mrs. E., Apt. 604, 1101 15th St. N.W., Washington 5, D.C.
Fenimore, Maj. J. B., 7219 Pasadena Blvd., Pasadena Hills, St. Louis, Mo.
Franck, P. G., 1734 P St. N.W., Washington, D.C.
Gasque, Lt. C. A., Office of the Fiscal Advisor, Persian Gulf Command, A.P.O. 523, c/o Postmaster, New York, N.Y.
Gillman, J. M., 5396 Earleton Dr., Washington 16, D.C.
Ginsberg, S., RM 3/c, N/C Div., c/o Fleet Post Office, San Francisco, Calif.
Goldberg, J. P., 4083 Minnesota Ave., N.E., Washington 19, D.C.
Gomez, E. V., Hartmann 654, Santiago de Cuba, Cuba.
Graham, J. J., 7 Court St., West Haven 16, Conn.
Greenbaum, H. H., 302 Stratford Rd., Brooklyn, N.Y.
Greenspan, B., 345 Madison Ave., N.Y.
Gulick, Mrs. F. A., 1525 New Hampshire Ave. N.W., Washington, D.C.
Guzik, L., 32 Broadway, New York, N.Y.
Hagios, J. A., Broad Street Association, 744 Broad St., Newark 2, N.J.
Hance, W. D., 214 Eddy St., Ithaca, N.Y.
Hanna, F. A., 7 Woodland Dr., R.R. 2, Falls Church, Va.
Haun, G. C., 6410 Regent St., Oakland 9, Calif.
Hermel, Cpl. S. H., 1675 Grand Concourse, Bronx, New York, N.Y.
Hildreth, Lt. C. G., Air Transport Squadron Eight, U. S. Naval Air Station, Patuxent River, Md.
Hough, L. S., Miami University, Oxford, Ohio.
Howenstine, E. J., Bureau of Agric. Econ., U. S. Dept. of Agriculture, Washington, D.C.
Isard, W., Box 361, Middletown, Conn.
Jenkins, S., 3931 48th St., Long Island City 4, New York.
Johnson, B. L., 9130 Bradford Rd., Silver Spring, Md.
Jones, F. C., Minnesota Valley Canning Co., Le Sueur, Minn.
Justiz, C. P., Hartmann 654, Santiago de Cuba, Cuba.
Kanally, D. E., 53 Ann St., Port Allegany, Pa.
Kassalow, Mrs. E. M., 110 35th St. S.E., Washington 19, D.C.
Kennedy, W. F., 987 Maplewood Rd., Lake Forest, Ill.
Klopstock, F. D., 33 Liberty St., New York, N.Y.
Lasso de la Vega, J. N., Apartado 679, Panama, Republic of Panama.
Lauderdale, R. L., 220 W. Tennessee Ave., Oak Ridge, Tenn.
Leblond, A. J., 2 Cook St., Quebec, P.Q., Canada.
Lee, F. H., 2314 E. Hill Ave., Cincinnati 8, Ohio.
Leslie, G., 2480 16th St. N.W., Washington, D.C.
Lougheed, W. F., Canadian Bank of Commerce, 25 King St. W., Toronto, Canada.
Lyons, J. A., Ottawa University, Ottawa, Kan.
Maroney, Miss M., 722 Jackson Pl. N.W., Washington 6, D.C.
Mehlman, H., 709 Lenox Bldg., Social Security Board, Washington, D.C.
Meyendorff, A. L., 1348 Perry Pl. N.W., Washington 10, D.C.
Morgan, J. N., C. P. S. Camp 23, Coshocton, Ohio.
Moss, B., 322 E. 173rd St., New York 57, N.Y.
Neifeld, Miss M., 15 Washington St., Newark, N.J.
Nelson, E., Department of Economics, University of Texas, Austin 12, Tex.
Newbury, F. D., Westinghouse Electric and Manufacturing Co., P.O. Box 1017, 306 Fourth Ave., Pittsburgh 30, Pa.
O'Donnell, W. G., Room 102, Commerce Bldg., Ohio State University, Columbus, Ohio.
Oliver, Lt. R. W., 1338 Talbert Ter. S.E., Washington 20, D.C.
Payne, J. H., 1627 K St. N.W., Washington, D.C.
Perine, Mrs. F. A., 1435 Edison Ave., Detroit 6, Mich.
Pescuma, M., El Maestro No. 64, Buenos Aires, Argentina, South America.
Pettee, E. W., North Dakota Agricultural College, State College Station, Fargo, N.D.
Pollak, O., Bettws-y-Coed, Bryn Mawr, Pa.
Porter, Miss M., 165 W. 46th St., New York 19, N.Y.

- Ropes, E. C., 3715 Canal Rd. N.W., Washington 7, D.C.
 Ross, S. C., Department of Economics, Smith College, Northampton, Mass.
 Saunders, W. J., 345 Fulton St., San Francisco 2, Calif.
 Scherer, Sgt. J., 32407749, CMPCS Intersec., A.P.O. 503, c/o Postmaster, San Francisco, Calif.
 Schramm, J. E., Sulzbacher, Granger & Co., 111 Broadway, New York 6, N.Y.
 Scott, R. F., 821 W. 32nd St., Los Angeles 7, Calif.
 Senior, C., 3814 W St. S.E., Washington 20, D.C.
 Serey, E. J., c/o M. Dyke, 12 Centre Ave., Lynbrook, N.Y.
 Sham, D., 900 19th St. N.W., Washington, D.C.
 Shapiro, J., 6514 Luzon Ave. N.W., Washington 12, D.C.
 Short, F. W., Vineland, Ont., Canada.
 Sielaff, T. J., Macalester College, St. Paul 5, Minn.
 Sister Clement Marie, St. Francis College, Joliet, Ill.
 Sister Jane Mary, Marygrove College Library, Detroit 21, Mich.
 Smith, E. L., 22 E. Frambes Ave., Columbus 1, Ohio.
 Smith, Mrs. P. M., E. Pine St., College Place, Wash.
 Splawn, W. M. W., Interstate Commerce Commission, Washington, D.C.
 Stephenson, Miss M. W., 6925 Pineway, College Heights, Hyattsville, Md
 Stevenson, A., 405 W. 117th St., New York 27, N.Y.
 Summer, Miss W. E., Apt. 5E, 3750 Lake Shore Drive, Chicago, Ill.
 Sundelson, Mrs. J. R., 2720 Wisconsin Ave. N.W., Washington 7, D.C.
 Thompson, C. S., University of Pennsylvania Library, Philadelphia 4, Pa.
 Van Horn, Miss E., School of Home Economics, Oregon State College, Corvallis, Ore.
 Wallace, Miss P. A., 1919 3rd St. N.W., Washington, D.C.
 van Walshem, H. F., Hotel Roosevelt, Madison Ave. at 45th St., New York 17, N.Y.
 Warren, D. M., Box 428, Panhandle Herald, Panhandle, Tex.
 Washburn, H. H., 2315 2nd Ave. E., Hibbing, Minn.
 Wellman, Cpl. C. A., Jr., Hq. Co., S.C.U. 1959, Ft. MacArthur, Calif.
 Westefeld, Ens. A., 3531 Martha Custis Dr., Alexandria, Va.
 Wexman, J. K., 732 E. 38th St., Minneapolis, Minn.
 Wiener, R. J., 16895 Inverness, Detroit 21, Mich.
 Williams, C. W., Dept. of Econ. and Commerce, University of Louisville, Louisville, Ky.
 Williams, E., 210 International House, New York 27, N.Y.
 Wu, C-H., 305 Lathrop St., Madison 5, Wis.
 Zuckerman, I., 1416 R St. N.W., Washington 9, D.C.

THE A.L.A.-A.E.A. BOOK LIST FOR FOREIGN LIBRARIES

In January, 1944, the American Library Association's International Relations Board through Mr. H. M. Lydenberg of the Washington office (Library of Congress Annex) submitted a request to the American Council of Learned Societies, the Social Science Research Council, and the other councils that their constituent societies assume responsibility of preparing a book list for distribution to foreign libraries.

On account of shipping hazards and war conditions in foreign countries the shipment of books to libraries abroad has been drastically curtailed during the last few years. Some important books published in this country during the war are already out of print and many more will be before transportation channels are reopened. Hence it was thought desirable to build up a reserve of copies to be distributed when transportation conditions return to normal. A grant from the Rockefeller Foundation will make this possible.

As a first step in complying with this request, the secretary of the Association prepared a panel of names of representative scholars in the twenty subject-matter fields into which economics has been classified (see 1942 Directory of the Association, pages 128-131) at the April meeting of the Executive Committee. This panel was submitted and reviewed and further suggestions were made of members qualified to undertake the compilation of lists and of competent reviewers.

On April 15, letters were sent to some hundred and fifty persons requesting them to submit lists of books of permanent value published in this country since 1938 in their respective fields of interest. These persons were asked to indicate the character and significance of each title and to rate them 1, 2, and 3 to indicate priority of choice. The amount of funds to be spent on this project was not determined at the time and it seemed desirable to have a small select list representing the most useful and scholarly products supplemented by a second list of appropriate titles and also a third list of good quality which might be drawn upon if the budget should permit it.

Upon receiving cards and lists from the bibliographers the items given top preference ratings in the twenty fields were compiled and sent out to the reviewers for their evaluations. In nearly all cases these lists consisted of bibliographers' first choices only. In only two fields were all the items included. Communications were also sent to secretaries of other associations related to our field in order to clear lists with them.

The ratings by reviewers were recorded on master lists from which final selections were made. The total of 690 items may seem large but it represents choices made from 4,000 to 5,000 titles originally submitted. A large number of duplicates were involved but the great bulk of these were eliminated by a careful screening process. A summary of a number of items by groups and by fields is given below:

<i>Groups</i>				
<i>Field</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>Totals</i>
1	10	10	18	38
2	16	15	11	42
3	4	9	5	18
4	20	30	18	68
(Stat., Math., Acc't'g)	(11)	(16)	(10)	(37)
5	(9)	(14)	(8)	(31)
6	7	9	9	25
7	13	27	16	56
8	9	21	10	40
9	10	14	5	29
10	11	22	22	55
10 & 11	6	16	14	36
12	9	17	14	40
13	6			6
14	3	13	5	21
15	9	18	4	31
16	9	13	20	42
17	11	30	29	70
18	3	17	7	27
19	7	8	6	21
20	7	13	5	25
Totals	170	302	218	690

Many problems of classification and selection arose.

Since the purpose of the American Library Association was merely to get a list of titles in the general field of economics, the classification into subject matter fields was of no concern to it but this method was resorted to in order to insure complete coverage and also to provide special lists which would be useful for other purposes.

Assembling the titles according to subject matter served to throw light on the logical organization of our classification scheme. Contributors in several specialized fields submitted items repeated in other fields. This was particularly true in fields 1 (Theory and General Works), 2 (Economic History), 4 (Statistics), and 5 (Business Cycles), in which the subjects treated covered in many cases both theoretical and applied aspects; and 6 and 7 (Public Finance and Money and Banking), 10 and 11 (Public Control and Industrial

Organization), 17, 18, and 19 (Labor, Social Problems and Consumption) in which much overlapping of subject matter occurs. Items appearing in the several fields incidentally received ratings of a large number of persons, in some instances, as many as 15 to 20 ratings compared to only 1 or 2 ratings in cases of a few of the more specialized items.

The largest number of titles were submitted in fields 6 (Public Finance), 17 (Labor), and 4 (Statistics, Mathematical Economics, and Accounting, an area composed of two very distinct fields), 15 (Agriculture), and 2 (Economic History). This concentration may reflect both the current significance of problems in these fields and the conscientious effort made by certain contributors to cover the ground theory and also helps explain the results. Only a few items were submitted in fields 13 (Mining, Manufacturing, and Construction) and 3 (Economic Systems). Field 3 might logically be merged with 1 (Theory and General Works) and 13 with 15 (Agriculture, etc.). Also fields 10 and 11 might well be merged since it was found impracticable to separate them in this project.

This experiment offers further evidence that our conventional method of classification of fields of economics into specific and discrete areas could be greatly simplified by adopting a "genus species" type, and it is interesting to note that a long step in that direction has been taken in the large revision of the "Social Science Check List" of the National Roster of Scientific and Specialized Personnel (Form #100-96, June, 1944). Such a change should be seriously considered when the time comes for a thorough revision of our Directory and if adopted, should be applied as well to the classification of books and articles and doctoral dissertation subjects in the *American Economic Review*.

Following instructions from the American Library Association, the list of titles was limited to books published in this country from the beginning of the year 1939. All books of foreign origin were eliminated as were all public documents and publications appearing serially. The list was restricted to the field of economics, leaving books falling more properly under political science, history, sociology, etc., to other associations submitting lists in those related fields.

Reviewers were instructed to rate items according to their scholarly character and their probable usefulness to foreign libraries in the post-war period. Some reviewers ruled out all textbooks on these grounds, but the consensus of the majority was followed and the better textbooks were included—usually in the third class rather than the first or second. It is obvious that these and other considerations account for many differences in ratings, but, on the whole, the final selection is believed to represent fairly the research and scholarly products of American writers during this period.

Below are listed the names by fields of those who compiled or reviewed the preliminary lists:

Economic Theory; General Works: R. H. Blodgett, Vanderveer Custis, J. M. Clark, F. B. Garver, William Jaffe, F. H. Knight, Fritz Machlup.

Economic History: C. W. Wright, A. H. Cole, E. J. Hamilton, D. L. Kemmerer, R. A. Clemen, Helen Fisher Hohman, H. F. Williamson.

Economic Systems; National Economies: C. B. Hoover, E. H. Hahne.

Statistics; Mathematical Economics; Accounting: D. H. Leavens, Jacob Marschak, R. L. Kozelka, Bruce Mudgett, P. S. Dwyer, F. C. Mills, Gerhard Tintner, Zenon Sztrowski, E. Heilman, A. C. Littleton, David Himmelblau.

Business Cycles and Fluctuations: R. A. Gordon, H. M. Somers, G. Haberler, F. C. Mills.

Public Finance; Fiscal Policy; Taxation: R. E. Manning, R. G. Blakey, H. M. Groves, Mabel Walker, C. S. Shoup, S. E. Leland.

Money and Banking; Short-Term Credit: L. H. Seltzer, L. L. Watkins, B. H. Beckhart, J. W. Angell, S. E. Harris, W. E. Spahr, E. W. Kemmerer.

International Trade, Finance, and Economic Policy: F. W. Fetter, J. P. Young, H. S. Ellis, P. W. Bidwell, J. B. Condliffe.

Business Finance; Insurance; Investments; Securities Markets: H. G. Guthman, H. E. Dougall, G. W. Dowrie, S. E. Howard, W. B. Taylor.

Public Control of Business; Public Administration; National Defense and War: Clair Wilcox, T. J. Kreps, E. G. Nourse, G. W. Stocking.

Industrial Organization; Price and Production Policies; Business Methods: M. W. Watkins, Vanderveer Custis, J. S. Bain.

Marketing; Domestic Trade: C. L. Phelps, N. H. Borden, H. R. Tosdal, E. T. Grether, F. E. Clark, D. J. Duncan, J. R. Hawkinson.

Mining; Manufacturing; Construction: J. E. Pogue, G. E. McLaughlin.

Transportation; Communication; Public Utilities: P. T. David, Ernest Williams, D. P. Locklin, J. C. Bonbright, G. E. McLaughlin.

Agriculture; Forestry; Fisheries: Asher Hobson, H. C. Taylor, J. S. Davis, T. W. Schultz.

Economic Geography; Regional Planning; Urban Land; Housing: J. K. Wright, G. E. McLaughlin, Helen Monchow, M. C. Reid, G. D. Hudson.

Labor and Industrial Relations: R. A. Lester, F. T. deVyver, C. W. Anrod, H. R. Northrup, J. D. Brown, Helen Baker, Paul Webbink, E. E. Witte, Dale Yoder.

Social Insurance; Relief; Pensions; Public Welfare: Ellen Commons, E. E. Witte, Paul Webbink, J. D. Brown, Helen Baker, Ewan Clague, S. E. Harris.

Consumption; Income Distribution; Coöperation: G. B. Greig, M. C. Reid, J. S. Davis, Hazel Kyrk.

Population; Migration; Vital Statistics: W. S. Thompson, P. M. Hauser, C. F. Taeuber, A. B. Wolfe.

Although copies of the final book list have been sent to all who participated in this interesting undertaking, such a minute gesture does not adequately reward them for their contribution. They deserve wider recognition and the thanks of the Association. This is a worth-while project and the current list may be the beginning of a series. It is at least an example of a coöperative effort made by a professional association to supply specialized and authoritative service to promote the cause of learning.

It has been suggested that this book list be published so as to broaden its usefulness and such a suggestion would probably have been followed except for one consideration; namely, despite all qualifications to the effect that this is a special purpose bibliography for post-war foreign libraries, some people would interpret this as representing an official buying list of the American Economic Association.

A few mimeographed copies of the A.L.A.-A.E.A. Book List remain in stock at the office of the Secretary of the Association and these will be sent on request to members while the supply lasts.—JAMES WASHINGTON BELL

Elsie Gluck died October 31, 1944.

Felix E. Held, professor of business organization at Ohio State University, died on October 31, 1944.

Oliver J. Marston of Los Angeles died December 7, 1944.

Bernhard Ostrolenk of the College of the City of New York died suddenly November 26, 1944.

William Amasa Scott, who became a member of the faculty of the department of economics at the University of Wisconsin in 1892 and was professor emeritus for the past thirteen years, died at his home in Winter Park, Florida, November 6, 1944.

George Simon Wehrwein, professor of land economics at the University of Wisconsin, died on January 10, 1945, from the effects of a heart attack suffered late in December.

Horace G. White was lost at sea February 7, 1943.

Appointments and Resignations

Curtis C. Aller has been appointed lecturer in the College of Economics and Business of the University of Washington for the remainder of the college year.

Clarence H. Anderson has recently been made a member of the department of economics of the University of Wyoming.

Willis N. Baer, formerly at Elizabethtown College, is now an economic analyst with the War Food Administration.

C. D. Baldwin, a Lieutenant (j.g.) in the Naval Reserve, is instructing in Navy supply procedures on the staff at Fort Ord, California.

Leonard M. Berkowitz, who served as an associate business economist with the Office of Price Administration before entering the Army, has been commissioned a Second Lieutenant in the Air Forces.

Herbert Block, research analyst with the War Department's Army Industrial College, has been appointed chief of a section in the Research and Analysis Branch of the Office of Strategic Services, Washington.

Dorothy S. Brady, formerly senior statistician with the Bureau of Human Nutrition and Home Economics, has been advanced from assistant chief to chief of the cost of living division, Bureau of Labor Statistics.

Robert A. Brady, professor of economics at the University of California, while on leave of absence is teaching at the University of Chicago.

T. E. Braunschweiger is teaching a course in retailing at the College of Economics and Business of the University of Washington.

Henry T. Buechel, acting assistant professor in the College of Economics and Business of the University of Washington, has withdrawn from teaching duties because of illness.

Edward H. Chamberlin, professor of economics at Harvard University, has returned to full-time teaching after serving in the Office of Strategic Services since the summer of 1943. He was attached to the United States Army in England and France as an assimilated Lieutenant Colonel.

Walter A. Chudson is serving as head economist in the Bureau of Supply, United Nations Relief and Rehabilitation Administration, and has been temporarily assigned as deputy chief to the Southwest Pacific office in Sydney, Australia.

Narnee Crittenden has been appointed instructor in secretarial science at the University of Arkansas.

Stuart Daggett, professor of economics at the University of California, is arbitrator for the International Longshoremen's and Warehousemen's Union and Waterfront Employers Association of the Pacific Coast.

Ernest Dale, formerly at Yale University, has taken a position in the research department of the American Management Association.

Carl A. Dauten has been appointed assistant professor of business administration at the University of Arkansas.

Charles L. Dearing has returned to the staff of the Brookings Institution after a leave of absence of two and a half years during which he served as director of the Research and Special Studies Division of the Office of Defense Transportation.

Carroll M. Degler has been promoted from assistant professor to associate professor at the University of New Hampshire and in addition continues as executive manager of the New Hampshire War Finance Committee.

Raymond C. Dein has been appointed assistant professor of accounting at the University of Arkansas.

E. O. Dille, professor of marketing at the University of Tennessee, resumed his teaching duties on January 1, after sixteen months' leave of absence with the War Production Board in Washington.

Russell A. Dixon is on leave of absence from the University of Pittsburgh during 1944-45 while serving as statistician and corporate analyst for the Price Adjustment Board of the Pittsburgh Ordnance District of the War Department.

Viola DuFrain, formerly lecturer in economics at the University of Chicago, has been appointed associate professor of business administration and secretarial studies at Missouri Valley College.

Robert A. Gordon, on leave of absence from his position of associate professor of economics at the University of California, has been made Executive Secretary of the Combined Raw Materials Board, Washington.

William D. Grampp has been appointed vice consul in the American Foreign Service Auxiliary, in charge of economic reporting at the Consulate-General in Genoa, and for the present is making his headquarters in Rome.

William Haber, on leave from the University of Michigan where he is professor of economics, terminated his connection with the War Manpower Commission and has been appointed adviser on manpower to the Director of the Office of War Mobilization and Reconversion.

James K. Hall of the University of Washington is now a Lieutenant in the Naval Reserve and is stationed in Washington, D.C.

Seth Hammond has resumed his duties in the department of economics at the University of Illinois after serving as economist with the Office of Price Administration in Springfield, Illinois.

Emily H. Huntington, professor of economics on leave of absence from the University of California, has been made director of the wage stabilization division, Tenth Regional War Labor Board, San Francisco.

Claude M. Isbister, formerly instructor and tutor in the department of economics at Harvard University, has accepted a position as economist to the Dominion Bureau of Statistics, Ottawa, Canada.

Raymond P. Jefferis, Jr., after two years as associate professor of economics and government at Clemson Agricultural College, has undertaken post-graduate study in economics at Princeton University.

B. M. Joffe, formerly labor economist and planning and budget officer with the National War Labor Board, has recently been made acting director of the Board's division of administrative management.

Edward E. Judy has been appointed instructor in accounting at the University of Tennessee.

A. D. H. Kaplan formerly of the University of Denver has been appointed to the staff of the Brookings Institution.

Frank L. Kidner has been promoted from lecturer to assistant professor of economics at the University of California.

Joseph G. Knapp, principal agricultural economist, Coöperative Research and Service Division, Farm Credit Administration, has been granted a six months' leave of absence to permit him to work on a study of the coöperative purchasing movement for the Brookings Institution.

Harold D. Koontz, on leave from Colgate University, has resigned as chief of the traffic branch of the Office of Civilian Requirement, War Production Board, to become assistant to the vice president in charge of research of the Association of American Railroads.

Frank J. Kottke, formerly an instructor in economics at Rensselaer Polytechnic Institute and then economic analyst with the Board of Investigation and Research, Washington, is now serving with the Army field artillery.

J. Wayne Ley, associate professor of business organization at Ohio State University, will serve as acting secretary of the College of Commerce and Administration during the current academic year.

Stewart McKinnon, who is employed in the U. S. Procurement Department, Seattle, has been appointed a part-time lecturer in marketing at the University of Washington.

Frank Munk, on leave of absence as lecturer in economics at the University of California, has recently returned from a field survey in Europe and been made director of training for the United Nations Relief and Rehabilitation Administration, Washington.

William H. Nicholls has resigned as associate professor of agricultural economics at Iowa State College and is research associate, with the rank of assistant professor, in agricultural economics at the University of Chicago, engaged in the development of research in the economics of the agricultural processing and distributing industries.

Frank Robotka of Iowa State College is temporarily at the Brookings Institution, Washington, D.C., under a collaborative arrangement between the two institutions, to continue work on a study of the economic nature of the coöperative form of business organization.

Laurence de Rycke, formerly of the State Department and the Pomona College faculty, has joined Occidental College and is teaching courses in money and banking, international economics and accounting.

Arthur Schweitzer is on leave of absence from the department of economics of the University of Wyoming while acting as research consultant at the University of Chicago.

Derson Shybekay has recently joined the faculty of Purdue University.

W. H. S. Stevens, formerly assistant director of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission, has been appointed director.

Claude W. Stimson, on leave of absence from Knox College, is making economic studies for the Bonneville Power Administration.

George W. Stocking, professor of economics at the University of Texas, has been granted a leave of absence for the period March 1 to November 1, 1945, to resume co-directorship of a study of international cartels and domestic monopoly which the Twentieth Century Fund is sponsoring.

Earl D. Strong of Grinnell College, after a year as district price executive with the Office of Price Administration, returned to participate in the Army program and in May, 1944, was appointed dean.

Albion G. Taylor, on leave of absence as head of the department of economics at the College of William and Mary, after serving with the War Manpower Commission, recently became chief of the food industries division of the War Food Administration, Washington.

James B. Trant, dean of the College of Commerce of Louisiana State University, was recently elected vice-chairman of the Economic Development Committee of Louisiana and chairman of the subcommittee on research.

Daniel R. Vining, formerly of the faculty of the University of Arkansas, has joined the staff of the University of Virginia as associate professor of rural economics.

E. S. Wallace, on leave from Millsaps College where he is professor of economics, is economist in the Office of Price Administration at Atlanta.

Arthur M. Whitehill, Jr., has been appointed to the staff of the Bureau of Industrial Research at the University of Virginia.

Faith M. Williams, formerly chief of the cost of living division of the Bureau of Labor Statistics, as consultant on costs and standards is directing the Bureau's recently initiated studies of international differences in costs and standards of living and its extended work on measurement of changes in the quality of consumers' goods.

Elsa Winners is associate in economics and business at the University of Washington.

VACANCIES AND APPLICATIONS

The Association is glad to render service to applicants who wish to make known their availability for positions in the field of economics and to administrative officers of colleges and universities and to others who are seeking to fill vacancies.

The officers of the Association take no responsibility for making a selection among the applicants or following up the results. The Secretary's Office will merely afford a central point for clearing inquiries; and the *Review* will publish in this section brief descriptions of vacancies announced and of applications made. It is optional with those submitting such announcements to publish name and address or to use a key number.

Communications should be addressed to: The Secretary, American Economic Association, Northwestern University, Evanston, Illinois.

Vacancies

No announcements.

Teachers Available

Money and banking, business finance, economic theory, general economics: Man, 45, married, Ph.D., 1939, State University of Iowa. Past six years has taught in liberal arts colleges. Interested in college or university position that offers professional advancement. Available May or September, 1945. E174

Theory, finance, public control of business, public utilities, labor, consumption: Man, 57, married, A.B., Wisconsin, M.A., Kansas, plus law training. Five years of economics and political science teaching and research in universities; 6 years of public administration and research; 2 years of newspaper editorial work; business and civic-commercial organization experience; publications. Desires university or college teaching or research position. Available immediately. E190

Labor economics, principles and theory, public finance, money and banking: Man, 34, married, Ph.D. Five years of college teaching experience; now teaching in a small, state-supported college, but desires professional advancement. Available in February or June, 1945. E191

International economics, theory, money and banking, business cycles, elementary economics: Man, 31, married, Ph.D., 1941, Columbia. Two years of teaching experience; in government service since 1941. Now writing textbook in international economics. Wishes permanent teaching position. Available immediately. E193

Labor problems, transportation, economic history, taxation, consumer economics, marketing: Man, 30, draft deferred, A.B., 1939, A.M., 1940, completing Ph.D. dissertation, University of Michigan. Business experience as junior executive; 1½ years of experience as acting professor at large Midwestern college and at Southern university; now completing second year as head of economics program at Eastern college. War Price and Ration Board member. Desires university or college teaching position offering professional advancement. Available in June, 1945. E194

Elementary economics, South American economy, postwar problems, cartels and corporations: Doctor of Law and Economics. Author of various books and opinions; member and honorary member of scientific societies; lecturing experience in the United States and abroad. Desires teaching or research position in or near New York or Washington; also part-time or advisory work or summer lecture work at a university. E195

Economic theory, money and banking, transportation, marketing, corporation finance, statistics, political science: Man, 49, Ph.D., University of Pennsylvania. Law graduate. Nineteen years of experience as head of department of economics in a small liberal arts college. Desires professional advancement. Available in June, 1945. E196

Number 14 of a series of photographs of past presidents of the Association. See "Birthday Note," by S. E. Howard and E. W. Kemmerer, in the March, 1943, number of the AMERICAN ECONOMIC REVIEW, pages 230-235.



Frank A. Fetter

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NUMBER THREE

LAUDERDALE'S OVERSAVING THEORY

By FRANK ALBERT FETTER*

1. *Early Writers on the Evils of Saving*

From the time of Adam Smith it has been "orthodox" doctrine that thrift is an economic virtue. Nearly from the first, however, there have been some dissents and of late they have been increasing. The pioneer dissenter was the Earl of Lauderdale in his oft-mentioned but little studied *Inquiry into the Nature and Origin of Public Wealth*, first published in 1804. Soon thereafter, T. R. Malthus also dissented somewhat irrelevantly, *à propos* of rejecting J. B. Say's theory of market gluts ("débouches") which was accepted by Ricardo and his followers. In his general text (1821) Malthus presented oversaving as the cause of the industrial depression in Great Britain between 1816 and 1821. Views similar to those of Malthus were expressed by his contemporaries, Thomas Chalmers and Sismondi.

The debates in Parliament during these years revealed general "bewilderment" regarding the causes and possible remedies for this desperate situation.¹ The commercial and financial depression in the United States at the same time was attributed by tariff beneficiaries to the malevolent dumping of goods by English merchants at cut-throat prices, and this has ever since been a stock argument for permanently high restrictive tariffs.

2. *More Recent Oversaving Doctrine*

Some half-century later the oversaving doctrine was advanced in the United States by an active-minded octogenarian, Uriel H. Crocker,

* The present paper is a by-product of unremitted studies in the history of economic thought, by the senior Past President of the American Economic Association, Professor Emeritus of Political Economy in Princeton University.

¹ See Smart's *Economic Annals of the Nineteenth Century*, Volume I, covering the period 1801-1820.

a Boston publisher, in a series of letters written between 1877 and 1884 and republished the latter year under the title, *Excessive Saving a Cause of Commercial Distress*.

In England, John M. Robertson, later a member of Parliament, championed what he called this "strange paradox," in a volume entitled *The Fallacy of Saving, A Study of Economics* (published in 1892, but written earlier). He recognized Lauderdale as the original proponent of the doctrine.

An indefatigable champion of the oversaving doctrine, especially as used to explain financial crises and mass unemployment, was John A. Hobson. He outlined the theory in 1889 in *The Physiology of Industry*, and expanded it in 1896 into a book entitled *The Problem of the Unemployed, an Inquiry and an Economic Policy*. He acknowledged the priority of "several early economists, in particular Lauderdale and Malthus," whose "analysis of these phenomena" he pronounced "brilliant and sound," "never refuted," and never "disproved."² In view of this unqualified endorsement of Lauderdale's "analysis" of oversaving, the following criticism of it applies fully to Hobson, and in a measure to all those who have followed his lead, although some have altered or added details to which they attach much importance.

Throughout a half-century until his death in 1940, Hobson's constant theme was the evil of oversaving. His reward was the wide influence he exerted toward the acceptance of the oversaving doctrine by business men, trade-union leaders, practical politicians, and professed economists. Under such descriptions (besides oversaving) as underconsumption, overproduction, lack of purchasing power, production outstripping consumption, supply for consumables exceeding demand, wages not keeping pace with production (or with technical progress) etc., it is today the most popular theory of crises and depressions, and has become subtly interwoven with belief in a mature economy, the virtues of permanent public debt, and schemes of national planning.

Noteworthy, also, is the high-powered, strongly financed propaganda carried on, mostly between 1923 and 1928, by Foster and Catchings of the Pollak Foundation, in which the stimulation (by monetary inflation) of consumers' expenditure was presented as the common-sense business man's remedy for industrial depression and unemployment, assumed to be caused by thrift. That this propaganda exerted a very considerable influence in the following years is not to

² *Op. cit.*, Preface, p. viii. These phrases refer to the views on oversaving, not to those on the sinking fund and permanent debt, which Hobson rejected, as did Robertson. Some recent opponents of saving, as will be indicated below, have, however, given support to the advocacy of permanent debt.

be doubted. After a century and a half, Lauderdale's ideas continue to be echoed and reëchoed in much contemporary economic discussion.

3. *Lauderdale's Views on Parsimony*

In view of this situation it seems timely to reëxamine Lauderdale's pioneer exposition of the oversaving doctrine. In the history of economic thought more attention is given to Lauderdale's distinction between private riches and public wealth than to his doctrine of oversaving, although the latter has had the greater influence upon theory and practice. Our attention is limited here to the oversaving doctrine as set forth in Lauderdale's fourth chapter, entitled "Of Parsimony as a Means of Increasing Wealth."³

Lauderdale defined parsimony as "abstinence from expenditure and consequent accumulation."⁴ He used the word parsimony, the reader should always bear in mind, as a perfect synonym of saving, abstinence, and frugality, not as having any distinctive opprobrious meaning such as niggardliness or miserliness which, since his time, it somewhat vaguely has come to have. His attempt, however, was to give to parsimony and to all its synonyms a new opprobrious character of an act that diminishes both private riches and public wealth.

The two terms, private riches (or "capital" of individuals) and public wealth, which were strongly contrasted earlier in the *Inquiry*, are used indiscriminately in most of the discussion of parsimony. Both are said to be decreased by parsimony—riches, primarily, but wealth as a consequence. In nearly every branch of the argument there is implied a last minute admission that parsimony may in fact increase private riches, but that it does not increase public wealth in the same proportion, or may diminish it.⁵

4. *The False Issue Joined with Smith*

Lauderdale attacked the doctrine of parsimony as phrased by Adam Smith: "parsimony, not industry, increases capital"; and "capital can only be augmented in proportion to what can be saved out of revenue."⁶ To Lauderdale the error of this doctrine appeared self-evident, for

³ Our citations are to the second edition of the *Inquiry* which appeared in 1819, and which, as the author truly said, made "no change in the doctrines."

⁴ Pp. 199-200. On the proviso see below, Section 5.

⁵ See below, Sections 11 and 13. The author in the earlier chapters described riches extensively as consisting of things having value in exchange because of their scarcity and of human desire for them; but he dismissed the nature of wealth with a scant phrase or two, assuming merely that it was somehow different from riches and more important, but not making clear just how. However, it is not a part of our present purpose to pursue this puzzling question further.

⁶ The citations to the 4th ed. of the *Wealth of Nations* seem to correspond with the Canon ed., Volume 1, pp. 320-23.

parsimony "cannot be a method of increasing public wealth, because wealth can alone be increased by the same means by which it is produced," (that is, by "industry," as he had previously argued). But because of the "esteemed authority" of Smith, and of "public prejudice" in favor of this error it was "necessary to enter into a more minute examination of this opinion." As presented by both Smith and Lauderdale, parsimony and "industry" are mutually exclusive causes of capital (and wealth), each offered as a sufficient explanation of the method by which capital and wealth are increased.⁸

The question whether parsimony alone or "industry" alone (production) is the *sole* cause of capital accumulation posed a false issue. Each proposition assumed the presence of the other condition whose influence it denied. Smith assumed that production preceded saving (otherwise there would be nothing to save), and Lauderdale that saving followed production (otherwise both riches and wealth would be at once consumed). According to Smith, all production was due to labor alone; Lauderdale included natural agents and capital among the "sources" of production.

The difference of view regarding the effects of saving was partly due, no doubt, to confusion between the idea of a *flow* of perishable consumables and that of a *stock* of durable productive agents—a confusion shared by both authors.⁹ Not until our own generation was conservative abstinence recognized as distinguished from cumulative abstinence, and its necessity to conserve from early and rapid destruction the stocks or stores of "capital" and natural resources.

5. *The Argument that Labor Alone Can Augment Capital*

Lauderdale first denied that parsimony alone can increase either the riches or the wealth of a whole society (implying, however, that it can increase the riches of some individuals). He later advanced to the more extreme proposition that parsimony can only do "mischief"; it reduces both the riches and the wealth of a society (p. 206). "Fortunately, however, for mankind . . . the effects of parsimony are

⁸ Pp. 200-01. However, another motive is revealed in these words: "And the more so, as it has given birth to an erroneous system of legislation, which, if persisted in, must infallibly ruin the country that adopts or perseveres in it." The reference is to the sinking fund system. See below, Section 16.

⁹ In the passages quoted from Smith, only the term "capital" is used, and "wealth" is not mentioned. Elsewhere, however, Smith uses the two terms without distinguishing their meanings, a confusion which Lauderdale sharply criticized in the earlier pages of the *Inquiry*. However, only the slightest and vaguest attention to this distinction is discernible in his own treatment, and frequently he abandoned the attempt to combat either aspect of Smith's opinion, and shifted to another contention. (See Section 11.)

⁹ See below, Section 9.

uniformly counteracted by prodigality." How, then, can either capital or wealth ever be increased? His answer was that an increase of riches can occur only when "increase of industry," (or "additional exertions of industry," or "an additional portion of industry") becomes available without "withdrawing a portion of labor from the production of consumable commodities."¹⁰ Such an increase of industry can sometimes occur, Lauderdale suggests, when labor is "rendered unnecessary by capital employed in executing newly invented means of supplanting labor" (p. 220). It is plain that what he has in mind is that men will then abstain from the enjoyment of additional consumables (to the full amount made possible by the invention) and will conserve and use the new productive capacity to create new and better capital agents, and will become "richer" by the amount of their value. In any tenable sense of the term, this is saving, but by Lauderdale's tricky definition it is not saving at all, because it does not necessitate an actual reduction in the amount of consumables (either of the previous year or some vaguely conceived average in the preceding period). As a commonly observed fact, the greater part of the saving in modern communities is of this nature. It is the action of fairly well-to-do or rich savers that are not skimping and denying themselves the enjoyment of their habitual amount of consumables, but are nearly every year putting aside some portion of their incomes in excess of the amount needed to maintain previous consumption, and thus are adding it to their capital (are becoming richer). This sort of saving can, of course, be repeated indefinitely, steadily increasing the amount of capital, yet according to Lauderdale's proviso, this is not saving at all.

6. *Argument that Newly Accumulated Capital Has No Possible Uses*

Running throughout the whole argument against saving is the tacit assumption that the amount of "capital" usable to effect any increase whatever of value is an absolutely fixed amount in any given state of the arts. Up to that point ("a sufficiency . . . of capital") its use is said to be in the highest degree advantageous in the particular application, with a hint that this advantage is offset if the capital is accumulated by saving. Indeed, Lauderdale modifies and virtually abandons his case against parsimony up to this point when he says: "If his supply . . . of capital is not sufficient . . . he might increase his wealth by abstracting a portion of his industry from the formation of consumable commodities and applying it to augment his capital . . . yet . . . he could not long continue without producing a positive

¹⁰ See, e.g., pp. 204, 206-08, 210. Observe the last proviso.

diminution of opulence"—evidently because his capital would after a time become more than "sufficient."¹¹ "Thus, it appears, that parsimony . . . may, *if pushed beyond the bounds of discretion*, be the means of materially diminishing the wealth of an individual."¹²

Utterly absent is the thought that the range of usefulness of capital is in any degree elastic, so that the advantage of increasing its amount may decline gradually, not abruptly. On the contrary, it is said that "a certain quantity . . . may be profitably employed" in any "existing state of knowledge," and the constant implication is that, except rarely, this sufficient amount somehow is at hand. This conception of the use of capital appears repeatedly, and when other arguments fail, all that is left is the truism that parsimony is sheer waste when it merely creates worthless new things, and therefore income might better be spent for present consumables. Thus, in large part, Lauderdale is crusading not against parsimony in general, but only against the futile parsimony of those who (as he imagines) blindly go on limiting present enjoyment in order to accumulate utterly useless and valueless agents. Yet he assumes that he is making good his charge against saving as it normally occurs.

Another reference to Smith's alleged errors implies that his doctrine of parsimony is an object of "ridicule" solely, or mainly, because it assumes the possibility of an "unlimited increase of every branch of that description of the property of a country which constitutes its capital" (pp. 225-26). But Lauderdale really disposes of his own argument when he recognizes in the context that beyond the point where it can "profitably be increased" capital "will not naturally increase . . . because . . . its value . . . must diminish in such a manner as effectually to check its augmentation" (p. 225). He appears to be confused between two thoughts: one, of a point where new capital has no valuable uses whatever; and, two, of a point where new capital still has some value in various productive uses, but not as great as the value it would have if used to maintain or increase the volume of present consumables. He did not see that it is at the latter point, not at

¹¹ Pp. 207-08.

¹² Pp. 208-09. This is put even more plainly as follows: "For as [an individual] cannot desire a greater quantity of capital than can be used . . . an additional quantity cannot appear to him an object of desire; and, therefore, cannot be considered as wealth" (p. 208). "A community may suffer from the creation of more capital than is requisite . . . for the moment a thing . . . is produced in such a quantity that the whole cannot be employed—a part ceases to be an object of desire" (p. 215). Again, to this effect: "Capital must at all times have its limits, beyond which . . . it cannot be increased to advantage. In every state of society, a certain quantity of capital, proportioned to the existing state of the knowledge of mankind, may be usefully and profitably employed in supplanting and performing labor" (p. 224).

the point of utter lack of value for any purpose, that saving actually stops. He caught scarcely a glimpse of time preference.

7. That Saving Reduces the Value of Present Consumables More than It Increases that of the New Capital Agents

The problem, as Lauderdale usually saw it, was to determine the effect of withdrawing "a portion" of the demand for consumables and adding just that much to the demand for productive agents (pp. 202, 606). If (a) these two classes of commodities were producible by the same agents (raw materials, "capital" and labor) in just the same proportion, and if (b) the transfer of agents were immediate and frictionless, the demand for and the value of, the various agents would, it seems, not be increased. But Lauderdale simply assumes that the "labor" employed in making new productive agents is of a different kind from that formerly employed in making consumables, and observes that when "any member of the society, by parsimony, accumulates capital, it must create an immediate demand" (evidently meaning additional demand) for the various kinds of labor producing the new productive agents, and thereby increase their value.¹³ Moreover, he speaks as if any temporary increase in the value of the particular labor thus employed would be permanent—another untenable assumption.

Further confusion is revealed in respect to the effect saving has upon the cultivation of land. It is first said that "parsimony, which depresses the demand for the produce of land, must discourage its cultivation, and, of course, diminish the demand for capital so employed"; yet the next paragraph expatiates upon "the increased produce of land, occasioned by the wise application of labor and capital . . . for immediate or remote consumption" resulting in "an opulent society" (pp. 220-21). The first and unwarranted assumption is that no land is used for the production of the new capital agents; the second, more reasonable, assumption is that when the stock of capital agents has been augmented, land will be used more intensively or extensively to produce a greater quantity of consumables.

Lauderdale observes that the commodities "immediately consumed" are reduced in value "by the portion of demand" abstracted "from them."¹⁴ As, however, this demand withdrawn from the purchase of consumables (as Lauderdale thinks of it) is added to the demand for non-consumables (new productive agents), it would seem, *prima facie*,

¹³ Page 211. The part taken by the other agents (land and "capital") in producing new agents is ignored, thus reverting to Smith's labor theory of value. See *passim*, pp. 202-11.

¹⁴ Page 212. This may mean either their value per piece, or their total value, but the latter fits the context better.

that their increased value would cancel out the loss of the value of consumables, leaving no net loss in the total value of all products.¹⁵ To concede this would be to abandon his argument, and Lauderdale, apparently sensing the danger, attempted to retrieve it by declaring that "a diminution of expenditure" for consumables "must reduce their value . . . in a greater degree than it increases the value of that labor, or of those commodities to the acquisition of which it is perverted."¹⁶ Proof of this would have been a hard task, and Lauderdale deftly sidestepped it by declaring that this "has been already shown," and misleadingly citing as evidence an earlier discussion which has no logical bearing on the proposition in hand.¹⁷

8. *That Reducing Present Consumption Cannot and Does Not Increase the Future Amount of Consumables*

We come now to what, perhaps, was Lauderdale's basic error, namely, the limitation of his vision to the present results of saving to the neglect of the future results thus made possible. He emphasizes exclusively the present decrease of consumables, ignoring their expected and intended future increase.

The first noteworthy expression of this idea is in these words: "Abstinence from expenditure and consequent accumulation, neither tends to increase the produce of land, to augment the exertions of labor, nor to perform a portion of labor that must otherwise be executed by the hand of man . . . [so we may conclude that] it cannot be a method of increasing public wealth" (pp. 199-200). Consider this assertion as it relates to capital. Lauderdale had rejected the labor theory of value, and had given to capital a coördinate place along with labor and land as a "source" of production. How, then, could he deny that the accumulation of capital makes possible the future increase of products? He seems on the point of conceding this conclusion a few pages later, in these words: "By such a change in the

¹⁵ This relates to the moment after production, but as the new capital agents are more or less durable whereas the consumables are soon destroyed, there would, from that moment, be a net gain of riches (fund of value) as compared with the earlier period. See further on this, Sections 8 and 9.

¹⁶ Page 212, substantially repeated, pp. 213, 214. Significant was the use of the term "perverted," not "diverted" or "converted." It was here that parsimony was stigmatized as "that baneful passion, which has been falsely denominated a virtue."

¹⁷ The section cited, beginning on p. 60, discusses merely "the effects of the diminution of the quantity of any commodity on the value of that commodity" (the degree of elasticity of demand, in more recent phrase) with no reference to the comparative degree in which the values of different commodities change (conversely) when demand is diverted ("perverted") from one to the other. It may charitably be assumed that Lauderdale was innocently confused as to what he had earlier discussed in what he himself called the merely "hypothetical statement" to which he repeatedly referred without warrant as proof of later assertions.

direction of his industry his capital would be undoubtedly augmented" (p. 205). However, he evaded this conclusion by shifting to the irrelevant proposition that "his wealth would not be proportionally increased."¹⁸

Glimmerings of the truth appear also in this remark: "Capital is not a commodity that is consumed; it is accumulated" (p. 208). Apparently sensing that this was an admission damaging to his argument, Lauderdale hastily resorted to the contention that the newly saved agents are useless and valueless (yet strangely continue to be saved).¹⁹ The thought plainly is of the present moment, when, by saving, productive agents are diverted²⁰ from the creation of consumables to that of additional capital agents, entirely ignoring the future increase of "opulence" made possible by the newly accumulated "capital." In one breath he says that "parsimony does not augment opulence," and in the next that "if a society increases its opulence in capital," this "must diminish its wealth in articles produced for consumption."²¹

9. *And Without Increasing the Future Fund of Capital*

It is easy, and in that sense it is "natural," to think of consumables as a flow, for they are for the most part perishable and are consumed within a limited period (as a year) in which they become ripe for use.²² But stocks of consumables are not all instantly destroyed, and different consumables differ greatly in the length of the periods over which their consumption is spread. An inventory of the stock of riches (or of wealth) of a modern community would consist in considerable part of stores of consumables, but in greater part of durable indirect agents (including natural resources) available for present and future use. It is therefore much nearer in accord with actual conditions (though not entirely accurate) to associate the thought of wealth with a stock of durable agents than with a current flow of direct consumable

¹⁸ See below, Section 11.

¹⁹ See Section 6. The double meaning of wealth (or opulence) as consisting now of current consumables and again of an accumulated stock of productive agents is revealed in the following passages: "Parsimony does not augment opulence; it only changes the direction in which the labor of a community is exerted; . . . if a society by parsimony increases its opulence in capital, it inevitably must diminish its wealth in articles produced for consumption" (p. 210). Here, again, Lauderdale disregarded his own distinction between wealth and riches, and resorted to the use of "opulence" as an ambiguous term conveniently meaning either or both. See also pp. 207, 208, 210, 211, 221.

²⁰ Again lapsing into the labor theory of value, he speaks of labor alone as being "diverted to" "the increase of capital," ignoring the participation of other agents.

²¹ Page 210. When Lauderdale says that saving "must diminish" the production of articles "for consumption," he is merely repeating his definition of saving. (See Section 3.) It is not a conclusion arrived at or even discussed in the course of the preceding argument that saving reduces (necessarily) the riches, wealth, or opulence, of the society.

²² See above, Section 4.

goods. The comparison between the wealth of a nation (as a state, or condition) at one time and at another time, and between the wealth of one nation and that of another, must be made mainly in terms of their *stocks* of indirect durable agents rather than in terms of their current flow of consumables.

Such a conception of wealth as a stock, or fund, is scarcely discoverable in Lauderdale's treatment. He constantly speaks of wealth (and also of opulence) as if it were measurable only in terms of a present flow of consumables. Indeed, he makes this confusion serve as another argument against saving; saving is said to reduce wealth because it diminishes the present *flow* of consumables (below the maximum possible) ignoring the additions to the future *stock* of durable productive agents which present saving makes possible.²³

10. *That Saving a Part of One Year's Income Sacrifices a Perpetual Series of Like Annual Amounts*

Near the close of the arraignment of saving comes a remarkable argument, in these words: "The abstraction from expenditures of a sum equal to what is added to the capital of the community causes a diminution of production to that extent; parsimony must be considered as a means of creating capital at the expense of sacrificing a revenue as great as the capital created; and it does not appear that a more ruinous operation in all its bearings can be devised than that of disposing of *an annual income* (for example, of a million) for the purpose of acquiring a capital to the same amount."²⁴

Observe the peculiar use of words in this passage. Using a portion of current income to increase one's fund of capital for investment, or of more or less lasting productive agents, is said to be "sacrificing" the "revenue"; and spending a portion of a single year's income for comparatively durable agents instead of for consumables is called "disposing of an annual income." In the usual sense of the terms, the revenue saved has not been either sacrificed or disposed of, for it or its equivalent is still in the owner's possession, making him by so much richer than he would have been.

Equally confusing is the use of the phrase "an annual income"; for what is saved "for the purpose of acquiring a capital of the same amount" is not "an annual income" in an admissible sense (suggestive of a series of equal incomes during a period of years), but is merely a portion of one year's income. The saver may or may not choose to save

²³ Adam Smith had introduced the idea of wealth as "all the necessities and conveniences of life . . . annually consumed," instead of the ordinary view. See Cannan's first note, p. 1, of his edition of *The Wealth of Nations*.

²⁴ Page 217. Italics added.

the same or a different sum in any succeeding year to add to his more lasting fund of capital. A possible explanation of the author's sarcastic description of this as a "ruinous operation in all its bearings" is that, grasping for arguments, he momentarily confused the value of the capital increase (which is equal to but one year's savings) with the present worth of "an annual income" "disposed of" or "sacrificed," (the present worth of which is twenty or twenty-five times as great as the capital-increase). Nowhere else, however, was this preposterous idea plainly expressed, but that it was vaguely present in his thought can hardly be doubted.

11. *The Issue Shifted to Comparative Increase of Riches and Wealth*

Repeatedly when Lauderdale sensed his argument had failed to prove that saving is powerless to increase either riches or wealth, or both, he tacitly abandoned the issue and shifted to the quite different proposition that, although saving can augment riches, it cannot augment wealth *to the same degree* (or *in the same proportion*). This was merely a corollary of the doctrine fairly well established in the earlier chapters of the *Inquiry*, that the two concepts, private riches and public wealth, are not identical—that private riches (total value) may sometimes be increased by greater scarcity (natural or monopolistic), while increase of public wealth means greater abundance.

This fallacy is endlessly repeated. It is first conceded that an augmentation of a man's capital "is very beneficial," "in the highest degree advantageous," and "desirable," but (as if it were a contradictory statement) it is said that "increase of industry is the only means by which . . . he can *at once* augment his capital and his wealth."²⁵ In speaking of the possibility of a man's shifting "a portion of his labor" from the production of consumable goods to the production of things "useful in supplanting labor," it is said that "his capital would be undoubtedly augmented; but it is evident his wealth would not be *proportionally* increased."²⁶ A confused paragraph in which is discussed the shift of "labor" from one consumable commodity to another consumable (not to producing capital-agents) concludes quite irrelevantly with the assertion that "additional exertions of industry that occasion no diminution in the production of consumable commodities must be regarded as the sole means by which a man . . . can at once increase his capital and his wealth in the same proportion" (p. 206). Again it is said with triple emphasis on the lack of identity of wealth and capital as the sole contention: "A society, like an individual, can *alone, at once*, increase its wealth and its capital *in similar*

²⁵ Page 204. Italics added.

²⁶ Page 205. Italics added.

proportions, by additional exertions of industry."²⁷ An attentive reader is often left with the impression that this is all that is meant by the strenuous denial of Smith's proposition, although the author himself thinks he is proving something very different.

12. *Belief in Parsimony Likened to Mercantilism*

At the climax of the argument, belief in the benefits of parsimony is disparagingly likened to the doctrine of mercantilism, "If indeed, the mercantile system of political economy has justly been deemed objectionable and is now universally exploded, because it exclusively regarded money as wealth, the system that holds parsimony to be the great means of increasing wealth, seems equally objectionable because it exclusively considers capital as wealth" (p. 217). Observe that the sole reason given for objecting to the doctrine of parsimony is that it erroneously assumes riches and wealth to be composed of exactly the same commodities and to be increased by parsimony in exactly the same proportion. But as we have seen, that suggestion shifts the issue from the original proposition that parsimony decreases both riches and wealth, and impoverishes society, to the quite different proposition that it does not increase the two in the same proportion.²⁸

13. *Prodigality Lauded as an Economic Virtue*

At the conclusion of his series of arguments, Lauderdale broke into praise of prodigality as the great virtue which alone saves society from the vice of parsimony. "Fortunately, however, for mankind . . . the mischief done by the parsimony and disposition to accumulation of one individual is almost uniformly counteracted by the prodigality of some other; so that, in practice, nothing is found more nearly commensurate than the expenditure and revenue of every society" (p. 226).

Then, as if it were an additional proof of the futility of parsimony, he drew from this alleged fact the following triumphant conclusion: "If the effects of parsimony are uniformly counteracted by prodigality, the public wealth can be neither increased nor diminished by it." Surely as an "if" proposition this is beyond dispute. But if true in fact, Lauderdale's whole crusade against saving is confessedly pointless.

The further disturbing question arises: Must the beneficent effect of prodigality be confined merely to offsetting the evil effects of parsimony? May it not go further and actually increase the riches (and wealth) of a society? It is, of course, difficult to imagine how riches

²⁷ Page 210. Italics added.

²⁸ See above, Section 11.

and wealth can be increased by their decrease, yet some modern pleas for greater spending, unbalanced budgets, and deficit financing seem to go to that length.

Here concludes Lauderdale's agile and ingenious argument to prove that parsimony is harmful, whereas prodigality is the real virtue. Throughout, he constantly assumed that what he was showing was that parsimony cannot increase public wealth at all, but what he did was first to attempt to show that saving cannot increase private riches; secondly, tacitly to admit that it can and does increase riches; third, to concede vaguely that saving can and does increase wealth also to some extent; and finally, to fall back upon the proposition that it does not increase wealth in the same proportion that it increases riches.

14. *British Public Debt and the Sinking Fund to 1802*

At this point, midway in the chapter we are examining, the subject is shifted to the sinking fund policy. It will be helpful to an understanding of the issues to glance at the growth of the public debt and of the sinking fund policy in Britain during the 114 years from 1688 to 1802. In that time there had been six periods of war (totaling 63 years) in each of which the public debt had been increased at an ever accelerating rate. In each of the five intervening periods of peace (totaling 55 years) the debt had been reduced by comparatively small amounts, totaling one-twenty-seventh as much as the increases. The last of these periods of peace (1785-92), the only one within Lauderdale's adult experience and the one in which the sinking fund had been most strongly operative, was the one which impressed him most. In that period of seven years the debt was reduced about two per cent, the average reduction per year being about one-third of one per cent of the outstanding debt. The (average) price of consols rose from 60 to 90 and the yield to investors fell from 5 to 3.3 per cent.²⁹

15. *Motive of the First Edition*

The dedication of the *Inquiry* was dated January, 1804 (but only in the second edition), and it is highly probable that the work was begun during the Peace of Amiens which lasted barely fourteen months, from March, 1802 to May, 1803, thus disappointing many hopes. In the light of experience in the preceding five periods of peace, it was to be expected that debt reduction would soon be resumed, the more so because the sinking fund recently had been fortified with larger appropriations. In each of the peace periods, while debt reduction had

²⁹ These figures are derived from Harvey E. Fisk's careful compilations in *English Public Finance*, 1920. "Consols" was the name by which the public bonds, or obligations, were called after the consolidation of the debt in 1751.

been comparatively slight, the price of consols had risen and (reciprocally) the rate of interest on new loans, public and private, had fallen in much greater proportion than the debt was reduced. It should be observed that Lauderdale tacitly assumed these changes to have been caused entirely by the operation of the sinking fund. This is an essential feature of his argument, without which it loses most of its significance, even if otherwise it had some validity. This assumption, both factually and theoretically, is plainly erroneous. The mere cessation of extraordinary expenditures and of public borrowing with each return of peace is enough to account for some lowering of the rate of interest at such a time.

The exaggerated prospect, in 1803, of a rapid fall in the rate of interest was terrifying to Lauderdale. Direct evidence may be lacking that he was an investor, large or small, in the public funds, but his concern for investors' advantage is not disguised by his repeated protestations of concern only for the public benefit.³⁰ He constantly links the welfare of the country with the continuance of a high rate of yield to holders of the public debt. The existing "distribution of the property of the country" (that is, at the close of a period of war when interest rates are high) is assumed to be "the natural and most advantageous" distribution of property, normally and permanently, and unless the "possessor" of property can continue to receive this high return, his interest "in the property he has to manage" and his "exertions in the conduct of it" will relax to the detriment both of "the proprietor and the public."³¹ The paradoxical argument is that the exertions of the active enterprisers to produce commodities will be diminished when they can borrow at a lower rate of interest; and that the public "benefit" must consequently suffer as the end result of saving, because with more capital fewer commodities will be produced and their prices will be higher!

³⁰ For example, he quotes with approval the statement that the sinking fund in 1727 had "become almost a terror to all the individual proprietors of the public debt . . . proprietors [of the public stocks] apprehend nothing more than being obliged to receive their principal too fast; a million a year was as much as the creditors of the public could bear to receive in discharge of their principal" (pp. 249-50). Again: "The sinking fund, the offspring of this delusion . . . has enabled those who had the management of the government more completely to derange the natural and most advantageous distribution of the property of the country—that distribution, which, giving to the possessor the greatest real interest in the property he has to manage, affords the greatest encouragement to those exertions of industry in the conduct of it, which alike benefit the proprietor and the public" (pp. 266-67).

³¹ Here obviously the thought is shifted from the lower rate of interest on the public debt to the correspondingly lower rate of private loans which, not without warrant, is assumed to go along with it (whether as cause or as effect is not here the question). The argument really has no application to the interests, motives, and exertions of the public bond-holders. The "possessors" of property who are mere passive investors, lending their funds of capital, are confused with those who actively "manage" industry.

16. *Circumstances of the Second Edition*

So much as to the outlook in 1802-1804, and the occasion of the first edition of the *Inquiry*. However, the factual prediction that debt would soon be reduced turned out to be mistaken. In 1803 began a longer and much more costly second period of the Great French War, during which and up to 1817, the public debt more than doubled, attaining the record amount of £850 million (4 billion dollars), entailing the highest per capita debt charge in British history until after 1914. During the period 1803-1817 the sinking fund policy continued to operate absurdly and futilely, the new borrowing at higher interest rates usually exceeding the redemption of debt bearing lower rates. The rate of yield on the public funds was undiminished and the fears Lauderdale felt in 1803 proved to be illusory. But after Napoleon was banished to St. Helena came a better prospect of continued peace, and again Lauderdale saw the threat of debt reduction and lower interest rates attributed by him wholly to the operation of the sinking fund. Thereupon he issued, in 1819, a second edition with trivial additions³² but with no change in the argument, although he confessed that "some of his speculations were unfavorably received." In the period between 1817 and 1833, one-fourteenth of the public debt was paid off, thus partially realizing his prediction of debt reduction, but not his prophecy of public disaster. Although average investor's yield on public bonds fell from some 4 to 3.4 per cent and continued for nearly a century below that figure, British business conditions continued on the whole to improve.

In "apology" for discussing parsimony and the sinking fund at such length, Lauderdale said (in both editions) that "it was necessary, in giving an idea of the origin and progress of wealth to show that it can alone be increased by the means by which it is produced; and this could not be effected . . . without fully explaining why parsimony, whether private or public . . . far from being the means of increasing, must, if pushed beyond a certain extent, prove fatal to the progress of public wealth" (p. 267). The weasel phrase "beyond a certain extent," really abandons the general thesis, admitting that parsimony up to some point may not be adverse to the progress of public wealth, but leaving quite uncertain at what point "parsimony, whether public or private, whether the effect of the depraved taste of individuals, or of an erroneous system of legislation" (that is, the sinking fund) begins to have an adverse effect.³³

³² A page-by-page comparison of the text of the first edition (in the Crerar Library) with that of the second edition (in the Princeton University Library) shows that the claim on the title page of the second edition that it is "greatly enlarged" is without warrant.

³³ On this evasiveness of the thesis, see above, Section 6.

However, in glancing back, it is plain that this is not the true explanation of the author's motive for discussing parsimony. It was not "necessary"—certainly it did not contribute—to the further development of the earlier distinction between private riches and public wealth; rather it served to becloud that distinction (which is not without merits). Rather, that distinction appears to have been designed to be used in his later argument against parsimony, and this in turn to serve his main objective, the condemnation of the sinking-fund policy.

17. *All Kinds of Saving and All Debt Reduction Condemned*

If valid at all, Lauderdale's argument would be just as valid against voluntary saving and against the reduction of private debt, as it was against "forced saving" and the reduction of public debt. He recognized this in concluding the chapter we have been examining, and spoke of his preceding discussion as "fully explaining why parsimony, whether public or private, whether the effect of the depraved taste of individuals or of an erroneous system of legislation . . . must, if pushed beyond a certain extent, prove fatal to the progress of public wealth."³⁴ However, he apparently despaired of overcoming "the depraved taste" of those who saved voluntarily, and he concentrated his attack upon what he called the "forced economy" of the sinking-fund policy (p. 242). He proposed to abolish the sinking fund because (as the law then stood) a substantial sum was raised each year by taxation for the special purpose of reducing the debt, and he believed and feared that that purpose would be accomplished. His argument against the sinking fund applies, in principle, against any reduction of the public debt (once it is in existence) by means of taxation, whether the tax proceeds are paid out directly or pass through the sinking fund.³⁵

18. *Assumption that Taxation for Debt Redemption Reduces General Demand for Consumables by the Same Amount*

Lauderdale makes the questionable assumption that (to use a current cliché) "the propensity to consume," that is, the propensity to maintain an habitual standard of living in comforts and luxuries, is the weakest of all the motives determining a taxpayer's behavior. This motive alone is supposed to be suppressed to the full extent of the taxation.

³⁴ Page 267. Note again the phrase "beyond a certain extent" which deprives the statement of definite meaning. See above, Section 6.

³⁵ The other contemporary objections to the sinking fund policy were for other reasons: the administrative and political difficulties of making it work, and the fact that the debt was not, on the whole, reduced, because the amount of new borrowing actually exceeded the amount of debt retired. It would be better, so the other critics urged, to tax heavily in order to extinguish the debt, and to cease the policy of deficit budgets.

So far as this assumption is incorrect, the case against the sinking fund policy is weakened or falls to the ground. But obviously there are various other ways in which men may react to new taxation. They may, for example, reduce the customary amount of their new investment either in private or in public stocks enough to continue the purchase of the habitual amount of consumables. This accords with common observation better than does Lauderdale's assumption. Or, if a taxpayer is among those whose holdings in public stocks are being redeemed at the time, he may choose to use a part or all of the repaid capital to buy consumables even though this reduces the total inventory of his capital assets.

Such choices are not as thriftless as they might seem at a casual glance. Bondholders are at the same time taxpayers, and the public debt is in the nature of a mortgage on their future taxpaying ability, including the income from their "riches," equal in the case of each to the capitalized value of the series of future tax payments for which each is liable as his share of the interest charge of the existing debt (and for amortization if that ever is to occur). Consequently, the present reduction of the public debt by means of present taxation reduces, by so much, this quasi-mortgage on the future incomes of each taxpayer, in due proportion to his own liability to future taxation for this purpose. If the bondholder uses a part of the proceeds of his redeemed bonds to apply on his taxes for that purpose, he is indeed reducing his capital assets, but at the same time his capital liabilities are being reduced, along with those of all other taxpayers. What is seen is that he is made poorer (in his formal capital accounts); what is not seen is that, to offset this, he is relieved of a future burden of taxation on his remaining capital and taxpaying ability derived from other sources.

19. Various Classes of Taxpayers in Relation to Debt Payment

Taxpayers fall, roughly, into three classes, composed of those whose capitalized liability for the future debt-charge (1) is just equal to, (2) is less than, and (3) is greater than, the present taxes they have to pay for the sinking fund. To members of the first class, the present worth of future financial benefits from debt reduction just equals (offsets) the present burden of taxation for that purpose. They neither gain nor lose by the policy. Even when they use the principal of the redeemed bonds to meet taxation for this purpose, and thus reduce their capital (according to private accounting) they are in fact paying off that much of the "mortgage" on their property and other future earning power.

The great majority of taxpayers probably belong to the second class

whose members pay less in present taxes for debt redemption than the present value of future relief from taxation to meet the debt charge. To the members of this group, therefore, the benefit of debt reduction is greater than their burden of taxation for this purpose.

To balance this large group there must be a smaller group (class three) whose members pay a larger share of present taxation for redemption purposes (in varying degrees) than their share of the future debt charge. The members of this group are not necessarily all richer than those in class two, but doubtless many of them are so. This effect is accentuated by the progressive rates of income taxation. The calling of a part of the public debt therefore reduces the present worth of their future liability by less than the present taxes they must pay for this purpose.

Lauderdale does not recognize this as his grievance, which is rather that rich investors are faced with the unpleasant necessity of reinvesting the proceeds of the redeemed bonds at a time when the interest rate on both public and private loans has fallen and, correspondingly, the price of securities of the same grade has risen above the call price of the old bonds issued under the stress of war. His class-conscious sympathies are all with those lenders who, in a sense, were war profiteers and who find it painful to adjust their ideas to the lower rate of yield in peacetime conditions. In this state of mind he made a scapegoat of the sinking fund policy, viewing it as the sole cause of the reduced interest rates.³⁶

20. *Debt Reduction Per Se, Not Its Suddenness, Condemned*

The modern student may be surprised to see how little Lauderdale's argument against saving is made to turn on the suddenness of the shift in demand from direct consumables to durable productive agents, as he normally conceived of it.³⁷ It is true that in some passages the argument seems to point in that direction.³⁸ A telling case can always be made against a sudden and great shift in market demand of any sort because of the evils it causes, at least temporarily, to some individuals and classes, no matter how and why the shift occurs, whether

³⁶ See above, Section 15.

³⁷ See above, Section 3.

³⁸ This is especially noteworthy where, pp. 257-68, referring to the period 1801-1803, phrases of this kind occur; "The accumulating fund now provided by law, is nearly six times greater than any of which we have had experience during peace," and more emphasizing the great amount and great rapidity of the debt reduction to be expected. Again it is said: "Accumulation of capital must, at all times, have its bounds, beyond which, if it is enforced, the consequences which have been stated must inevitably be produced." On the seeming limitation of the thesis to the evils of a vaguely defined excess of saving, see also above, Section 6.

as the result of natural forces or of human acts and institutions. But this is no proof of an essential long-time injury from the change. A sort of change which, if slow and moderate, would, in universal opinion, be beneficial to society, may cause widespread disaster if it occurs suddenly and on a large scale.³⁹

Occasionally there is a faint suggestion that Lauderdale is thinking of business depressions following wars as the main or sole evil caused by "forced" oversaving.⁴⁰ But his main thesis is that debt payment decreases both the riches and the wealth of a society no matter how moderately and gradually effected. The oversaving theory of crises is but faintly foreshadowed by him, although it was perhaps the most important later application of his doctrine.

21. *Capital Saturation and the Mature Economy*

Another confusion in Lauderdale's thought regarding the results of increasing capital by means of saving calls for notice. He begins by denying that saving can increase capital;⁴¹ yet he inveighs against saving throughout the book just because it does increase capital and therefore reduces the rate of interest. A basic contention in an earlier chapter (contrary to the labor theory of value) was that capital (as a stock of material agents) is an essential factor (or "source") of production; this implies that greater abundance of capital is conducive to greater production (of consumables or of more productive agents as the saver may prefer). But the argument is shifted from this idea to the notions: (1) that only a strictly limited amount of capital can find any useful (or valuable) application; (2) that this limit is ordinarily attained, and any further saving is sheer waste. There is little, if any, recognition of an elasticity of demand for capital.⁴²

The thought comes near to the recent conception of the mature economy. Lauderdale assumed that this limit had been fully attained in Britain, but the contrary regarding foreign countries; they were inferior to England industrially because they were deficient in capital. His final patriotic argument against "forced" saving was that "if this country could, by parsimony, render capital so abundant, as it is impossible to prevent the removal of it, [*sic*] it would be relatively

³⁹ It is an everyday experience; a man can safely descend the stairs one at a time, but may break his neck if he steps out of an upper story window; the safety valve in a steam engine prevents an explosion. This is in accord with the basic economic principle of the golden mean, yet it is ignored, perhaps, as frequently in economics as in any other field of thought.

⁴⁰ For example, p. 89.

⁴¹ Declaring that only production can increase it, see above, Section 5, on this quibble.

⁴² See above, Section 6.

injurious to our interest; for . . . such nations . . . whose interests, at present, we would least wish to promote . . . would derive more benefit from it than would result to the British Empire.”⁴³ The curious argument thus was that the financial and industrial strength of Great Britain was due to its greater fund of capital and a lower rate of interest than that in France, yet British capital, strangely, it seems, was not exported to France. But if the rate of interest in Great Britain should, as the result of forced saving, be reduced below its existing level, it would be of no comparative advantage to British industry, for the surplus capital would be loaned to France where it would be of great benefit, France not having reached the stage of a mature economy. So runs the thought.

22. *Dependence of His Argument against the Sinking Fund on that against Saving*

A bird's-eye view of Lauderdale's whole argument, or series of arguments, clearly shows that his main object was to discredit the sinking-fund policy, and he undertook, merely as a means to that end, to prove the general evil effects of saving.⁴⁴ He did not rest his case on any single argument, but adduced one after another, as if by numbers he could offset their separate logical weakness and mutual inconsistency. Not one of them was fully developed as the thesis required, to the point of unqualifiedly condemning all saving, but stopped short with the contention that saving cannot with advantage be carried on beyond some vaguely hinted limit of capital saturation (or of a mature economy), with the virtual admission that, until that limit is reached, saving is of considerable, even great, advantage.⁴⁵

The futility of the argument on this issue is the more remarkable because of the intellectual vigor, originality, and acuteness Lauderdale displayed in the earlier chapters of the *Inquiry*, where he anticipated in some measure fertile ideas developed three-quarters of a century later. His contemporaries gave scant attention to his argument on saving, although many of them opposed the sinking fund policy for other reasons.⁴⁶ In rejecting his thesis against saving, they at the same time rejected or ignored other parts of his work more worthy of attention.⁴⁷

⁴³ Page 264. "So abundant" apparently meant "as to reduce the rate of interest," and "such nations" meant France and the countries under the domination of Napoleon.

⁴⁴ See above, Section 18.

⁴⁵ See above, Section 6.

⁴⁶ See above, Section 17, note 35.

⁴⁷ This is strikingly true of what appears to have been the only contemporary review of the book, that which appeared in the *Edinburgh Review*, Vol. IV, no. viii. It is known to have been written by Henry (later Lord) Brougham, who outdid Lauderdale in the cocksureness of his opinions. It was the irony of fate that Lauderdale's distinction between

23. *Lessons from the History of Economic Doctrines*

The student of economic doctrines discovers various ideas reappearing like the pieces of colored glass in a kaleidoscope, the same essentially in detail, but in ever-changing settings. Something of worth to present thought is, therefore, often to be gained by a restudy of past opinions, even though the first result may seem to be merely to expose their error. Showing that a thing cannot be done in a way that looks promising is often a service of laboratory research second only in value to showing how it can be done. The history of economic thought is the experimental laboratory of economics, or as near to that enviable agency of the physical sciences as social students are able to come. In view of the overshadowing importance of the business-cycle problem and of the place of the oversaving theory in its discussion; in view of the staggering volume of public debt and of influential opinions favoring its permanency; in view of the doctrine of the mature economy and its relation to the oversaving theory, this examination of Lauderdale's original ideas may have not merely antiquarian interest, but may be of practical pertinence in the consideration of contemporary problems.

riches and wealth made a strong impression upon only a few writers—in France, Ganilh, and in America, Raymond and the nationalist school, largely centered at Philadelphia around the Gareys, father and son—who perverted it into an argument for restrictive tariffs, a use which Lauderdale would have deplored. See the writer's paper on "The Early History of Political Economy in the United States," in the *Proceedings* of the American Philosophical Society, Vol. 87, No. 1, 1943.

THE FUTURE OF KEYNESIAN ECONOMICS √

By DAVID McCORD WRIGHT*

Economic theory, like the Supreme Court of the United States, often reflects the state of public opinion, while public opinion is well known to be related to fluctuations of economic activity. At the present time increasing prosperity seems to be bringing with it a growing reaction against Keynesian teaching.¹ Criticism of policies and theories, sometimes rightly and sometimes wrongly attributed to Keynes, reaches from newspaper columnists of various degrees of economic training through the academic work of von Mering and Hahn to the fundamental theoretical dissent of Professor Frank Knight.² Under the circumstances, it seems likely that the present trend will go considerably further before it is reversed.

That a theory so obviously depression-born as Keynes's should lose some of its appeal in prosperity is not surprising. When we are struggling with labor shortages and inflation, references to unemployment and deflation seem out of date. Nor can the Keynesian theory—any more than any other—claim a complete immunity from error. The present paper will attempt to develop some of its shortcomings. Nevertheless, a fundamental question presents itself: Shall we allow ourselves during prosperity to forget the problem of effective demand which forms the core of Keynes's teaching? That is the real problem.

* The author is associate professor of economics at the University of Virginia.

¹ By "Keynesian teaching" and Keynes's theory I shall mean in this article the body of analysis presented in the *General Theory of Employment, Interest and Money*. In other words, I am not attempting to discuss the private personal views of Lord Keynes at the present or any other time but only to evaluate the body of analysis presented in a specific book.

² As an example of criticism of "Keynesian" ideas on a more popular level see J. H. Crider, "It's Your Money, Brother," *Saturday Evening Post*, February 26, 1944. For academic criticism, see L. Albert Hahn, "Deficit Spending and Private Enterprise," *Post-War Readjustment Bulletin* No. 8 (Chamber of Commerce of the United States, Washington, 1943); Otto von Mering, "Some Problems of Methodology in Modern Economic Theory," *Am. Econ. Rev.*, Vol. XXXIV, No. 1 (Mar., 1944); Harold G. Moulton, *The New Philosophy of Public Debt* (Washington, 1943); Harold G. Moulton, George W. Edwards, James D. Magee and Cleona Lewis, *Capital Expansion, Employment, and Economic Stability* (Washington, 1940); on a still more technical level, see Frank H. Knight, "The Business Cycle, Interest, and Money: A Methodological Approach," *Rev. Econ. Stat.*, Vol. 23 (May, 1941). These particular articles are mentioned only by way of instance. Numerous others could be given and other writers mentioned but the writer does not feel any useful purpose would be served thereby.

There is a tendency occasionally present today, especially in the popular press, to divide economists into two classes, "Keynesian" and "anti-Keynesian," or "orthodox," and to imply that an unabridgable gulf lies between them. Such a mode of thought seems both inaccurate and unfortunate. It is inaccurate, because it would be difficult to find an American economist today, of whatever shade of political opinion, who does not make use of some elements of the Keynesian schema. It is unfortunate, because it leads to loose generalization and, by giving a spurious appearance of disagreement, undermines the prestige of economics in the vitally important fields in which there is substantial unanimity.

The present essay is to be viewed as an attempt to overcome this impression of fundamental cleavage and to reconcile some of the apparently wide divergences of thought. No one can deny that there are great differences today regarding proposed economic policy. But that such divergences reflect a basic theoretical cleavage seems to the writer much more doubtful. If economists would only state the sort of world at which they are aiming, and the conditions which they are assuming regarding the present one, they would find themselves, it is submitted, in very considerable analytical and theoretical agreement—whatever differences in emotional attitude, social aim, and factual assumption might still survive. Have we not reached a point in which Keynesian theory can be viewed in accurate proportion? Let us try in this paper to relate the system to the views which preceded it, evaluate its policies, and reach some conclusions regarding its future.

I

It is probable that the Athenians did not execute Socrates so much for the things he had said as for the things they thought he had said. The analysis presented in the *General Theory* is widely disliked because of certain supposed doctrines which in fact form no part, or, in some cases, no essential part, of the basic analytical structure. In particular, in business circles in this country, it seems often thought that there is something occultly "radical" or anticapitalist about the Keynesian schema. This is scarcely justified. In criticizing the *General Theory* it is important to distinguish between (1) a body of authoritative scientific analysis and (2) the personal opinions, as of 1935, of one Mr. Keynes, a somewhat discouraged liberal, regarding fact and policy. The difference is almost always clearly labeled. Most of the points particularly criticized today come in Chapter 24, "Some Notes on the Social Philosophy Toward Which the General Theory *Might Lead*" (italics added), and this chapter clearly belongs to the second category

I have named. It is not an integral part of the scientific analysis which precedes it, and, moreover, if the writer interprets it correctly, is rather tentative in nature. Let us then, excluding this chapter for the time being, run over some of the main conclusions which are often erroneously thought to be an inevitable concomitant of the Keynesian method.

1. The Keynesian analysis does not in itself "prove" that we "have" to have socialism, or socialized investment, or that capitalism is "bound" to destroy itself.³
2. The Keynesian analysis does not necessarily prove that there will "certainly" be long-range unemployment after the war (or at any other time).⁴
3. It does not necessarily depend save in a purely formal sense either on rigid prices, rigid wages, or "hoarding" to show possibilities of unemployment equilibrium.⁵
4. It does not say that a rising national debt is always necessary or that there is no burden to the national debt.⁶
5. It does not say that spending is always a good thing or that "saving" is always bad.⁷
6. Keynes does not believe that every dollar spent by the government necessarily "multiplies" itself several times.⁸
7. Keynes's analysis in the *General Theory* is not an argument for indiscriminate money wage increases to "redistribute" wealth, or "increase purchasing power." On the contrary, he very explicitly favors there a policy of stable money wages.⁹
8. Keynes's analysis does not deny that wage and/or price reduction can at some times and under some circumstances cure unemployment; nor need the argument necessarily be a matter of liquidity preference.¹⁰
9. Keynes does not favor protectionism or tariffs *per se*.¹¹
10. He does not "disregard" in the *General Theory* the possible adverse effects of taxes on profits and of high, progressive income taxes generally.¹²

³ See Parts III and IV this paper.

⁴ *Ibid.*

⁵ *Ibid.*

⁶ See my "Moulton's *New Philosophy of Public Debt*," *Am. Econ. Rev.*, Vol. XXXIII, No. 4 (Dec., 1943), p. 573.

⁷ See, for example, J. M. Keynes, *The General Theory of Employment, Interest and Money* (New York, Harcourt Brace, 1936), p. 377.

⁸ *Ibid.*, pp. 122-23.

⁹ *Ibid.*, pp. 270-71.

¹⁰ See Part IV this paper; also Keynes, *op. cit.*, p. 264.

¹¹ Keynes, *op. cit.*, p. 338 *et seq.*

¹² As one example among many, see *ibid.*, p. 372.

11. The *General Theory* is filled with references to the importance of business expectations and business "confidence." There is no ground for saying that these factors are omitted. In fact, a conservative candidate could conduct a political campaign largely on quotations from the *General Theory*.¹³

When this list is read over, and when it is remembered that most of the really startling Keynesian theoretical propositions, as for example on the "equality" of saving and investment, have been shown to be largely matters of definition, the question naturally arises why is Keynes's teaching so disliked in some quarters today? To answer this we must first give as simplified an account as possible of what that teaching is. With so much misunderstanding evident regarding conclusions, it seems plain that there must also be a widespread misunderstanding of the analysis itself.

II

Following the lead of Lord Keynes, the Keynesian schema is usually treated, by opponents and adherents alike, against a background of so-called "classical" thought. The resulting impression is apt to be, first, that there was prior to the *General Theory* some single homogeneous body of doctrine regarding the relationship of employment, interest and money, and, second, that Keynesian teaching represents a marked divergence from that body. Neither of these ideas is wholly accurate and their joint effect seriously warps our perspective on the problem. Both prior to Keynes and today the widest divergences may be found regarding basic factual assumptions connected with the employment puzzle. Nevertheless, the writer submits that it is possible to piece together a composite picture not inaccurately representing the views of a majority of English and American economists prior to the *General Theory*, and he feels that it is in the light of such a picture that the nature of the Keynesian contribution can best be judged. The tradition, submitted to have been probably the prevailing one in this country, will be found (typically) more hinted at than stated by Marshall, and usually developed in American elementary texts in eclectic combination with some of the views of Böhm-Bawerk, Fisher and Wicksell.¹⁴

Everybody agrees that in full-employment equilibrium the labor and other resources of society may be thought of as being distributed between two groups: makers of investment goods and makers of con-

¹³ For example, see *ibid.*, p. 162.

¹⁴ Alfred Marshall, *Principles of Economics*, 8th ed. (London 1936), p. 534. "A strong balance of evidence seems to rest with the opinion that a rise in the rate of interest, or demand price for saving, tends to increase the volume of saving."

sumers' goods. Everyone further agrees that under such circumstances the proportion which one group bears to the other is roughly determined by the consumption habits of the economy—in Keynes's system measured by the "propensity to consume."

To the English classical writers the rate of interest was, of course, set by the supply and demand for loanable funds but on analysis this will be found to have been usually only the most superficial aspect of their theory. Fundamentally these monetary transactions were symbols expressing: (1) the supply of the commodity real saving—a flow of resources currently set free for investment uses by the failure of society to consume its entire output; (2) the demand for this commodity fixed by current investment opportunities—in the last analysis the current net marginal value product to be derived from the use of newly produced investment goods.¹⁵ The money rate on loanable funds merely expresses the "real" rate—the excess, figured in some ideal numeraire, of real purchasing power returned to the lender, by the borrower, over that which the lender had originally parted with in making the loan.¹⁶ Monetary changes might distort this "real" relationship but, when equilibrium was once more reattained, the real rate would be reestablished.

So far we are on fairly firm ground but just at this point one encounters a basic cleavage of economic thought which underlies nearly all approaches to the problem and which crops up again and again. To one group of writers—for example, Professor Frank Knight—there is no limit, or virtually no limit, to the uses to which additional increments of capital (the current flow of net new investment) can be put.¹⁷ It follows that, barring "frictions," it is practically impossible to have too large a proportion of the resources of society devoted to making investment goods, and no need to vary this proportion, certainly not to decrease it. Unemployment is to be cured by removing "frictions"

¹⁵ It must always be remembered—*vide* Schumpeter and Böhm-Bawerk—that mere physical productivity cannot explain the existence of any permanent value surplus from which interest would be paid. See J. A. Schumpeter, *The Theory of Economic Development* (Cambridge, Harvard Univ. Press, 1934).

¹⁶ The term "real" rate of interest is subject to a variety of interpretations. It may be used *ex post* simply as meaning the actual "real" return from a given loan allowing for changes in the value of the money unit; or, more usually, it may be given a Wicksellian connotation as (a) the rate at which the demand for loan capital just equals the supply of (real) saving, or (b) the rate which would prevail in a barter economy where loans are made *in natura*. Compare Gottfried von Haberler, *Prosperity and Depression* (Geneva, League of Nations, 2nd ed., 1939), p. 32 *et seq.* The Swedes have elaborated these concepts still further with reference to particular credit and price policies which individual writers have thought desirable. Further complication arises from the fact that actual loan contracts are made for a given length of time and that in the interval the "going" rate may change considerably.

¹⁷ Cf. F. H. Knight, "Interest," *Encyclopædia of the Social Sciences*, Vol. VIII (1932), p. 134. D. McC. Wright "Professor Knight on Limits to the Use of Capital," *Quart. Jour. Econ.*, Vol. LVIII (May, 1944).

of various sorts—as by wage reduction, or lowering interest. To another group current potential uses for additional capital may vary greatly over time, necessitating changes in consumption habits and/or state investment.

While one cannot be too dogmatic in this matter it is submitted that prior to Keynes probably the larger number of American and English economists believed that the *current* demand for loanable funds (essentially for the most part demand for the real resources they represented), varied over time with changes in invention, expansion, growth, etc. While John Stuart Mill's view of developed industrial countries as habitually on the "verge" of the stationary state might have been considered extreme, most economists in this country—with varying degrees of optimism regarding the investment outlook at particular periods—nevertheless felt that outlets varied over time, and that a naturally stationary state was at least a theoretical possibility.¹⁸ But if investment outlets varied, how could full employment be maintained?

While the problem was seldom explicitly faced, the answer, it is submitted, would probably have been along the following lines. Current saving behaved like "any other" commodity. When new inventions, etc., temporarily raised the marginal productivity of capital and made it desirable, for the time being, to divert a larger proportion of resources from consumption to investment, the demand for loanable funds (under the assumed conditions thought to be little more than the symbol of the demand for free resources, released by current saving), was raised, and as a result the rate (both real and money) of interest went up. With an increased "price" paid for current saving the amount of current saving "naturally" would increase.¹⁹ Men would be shifted from making consumption goods to making investment goods and all would be well.

If this process should be reversed, when the new opportunities were substantially exploited, and if no new ones had appeared, a greater proportion of consumption would be desirable. This too would automatically be provided for. As investment opportunity declined the rate of interest would decline. Consumption would rise as investment fell and surplus laborers in the investment industries would be moved back into making consumers' goods.

Full employment, then, barring "frictions" of adjustment, and the business cycle, would always be maintained by means of a supposed functional relationship between profits, interest, and current savings.

¹⁸ J. S. Mill, *Principles* (Ashley ed.), p. 731. Much the same idea is embodied in D. H. Robertson's reference to "inevitable discontinuities of investment outlet."

¹⁹ Marshall, *op. cit.*, p. 534. Since the first draft of this paper was prepared Dr. Allan Sweezy has presented a similar analysis. See Sweezy, "Secular Stagnation" in S. E. Harris, ed., *Postwar Economic Problems* (New York, McGraw-Hill, 1943).

If the economy reached a stationary state consumption would rise and the rate would: (1) fall to zero, with no net savings-investment, as maintained by Schumpeter, Irving Fisher and some of the English writers; (2) following some Austrian and Swedish writers, consumption would rise so high, due to time preference, that a certain minimum rate would be maintained since below it there would be capital consumption; (3) other writers, as J. B. Clark, spoke of a "minimum" without giving any very explicit analysis as to what that minimum was or why it would arise. But in any event there would no longer be any net savings-investment and there would be full employment.²⁰

Keynesian teaching diverges from the foregoing in three important ways. First of all, as with many other modern writers, emphasis is placed not so much on the technical conditions of production as on the "marginal efficiency of capital"—the *subjective expectation* of future profits to be derived from a newly produced capital asset. This is merely an elaboration of what earlier analysis, if properly interpreted, had meant to say, but it gives a place for the "confidence" and speculative factors which are so important in any real situation. Next, and more important, the Keynesian analysis denies any strong functional relationship, such as has been explained, between the rate of interest and the propensity to consume. To Keynes neither observed aggregate consumption nor the propensity to consume necessarily rises when the interest rate falls. Thirdly, the Keynesians set up a "purely" monetary theory of interest by means of which it is shown that the rate will not fall to zero even when there is unemployment and a "surplus" of free resources.

In addition to these three points the *General Theory* gives such special emphasis to one explanation of the decline in the "marginal efficiency of capital" that many people mistake this explanation for *the* general theory itself. I refer, of course, to the idea that, as production increases, consumption rises but not as much. This concept is the customary point of departure for the most usual account of Keynesian underemployment equilibrium. Because consumption does not keep pace with output, it is said that profit expectations on new investment—the "marginal efficiency of capital"—will eventually be forced to fall, but since the rate of interest does not necessarily fall with it, a point is reached at which the inducement to invest becomes zero. Were consumption to rise all might yet be well but, since the propensity to consume in the short run is relatively invariant, consumption is not likely to rise. A deflationary gap appears, secondary deflation begins, and the economy is forced down to a point at which either the refusal

²⁰ This classification excludes writers who like Frank Knight apparently deny the possibility of stationary equilibrium.

of people to curtail their standard of living further or the intrusion of new dynamic factors brings the contraction to a close. New dynamic factors, or capital consumption, may then induce some recovery, but there remains a body of men unemployed and, unless something happens to raise sufficiently either the inducement to invest or the propensity to consume, *average* unemployment, despite cyclical variations, is indefinitely prolonged. On one side there is usually, but *not* necessarily, a block of "idle" money; on the other, there is always a block of idle men.

The sequence of events just given is by no means the only possible way in which Keynesian unemployment equilibrium could arise but it is the most usual manner of explanation and will serve as a good point of departure for our appraisal.

III

Our task in this paper is to see whether the foregoing analysis should properly be called "radical" and whether it represents a marked divergence from, or contradiction of, the main current of previously existing economic thought. But first of all, whether radical or not, a large part of it, even on first examination, is obviously true. Of the three main points mentioned above, the first, the concept of the "marginal efficiency of capital," and Keynes's brilliant bull and bear analysis have roused little opposition and are generally accepted. The second, the failure of the propensity to consume in the short (five- or ten-year) period to move inversely with the rate of interest, to any important extent, is so well established empirically as to be incontrovertible. On the other hand, the behavior of the longer-run propensity to consume is more problematical and, as Dr. Samuelson points out, it appears at times to rise spontaneously, so as to overtake output.²¹ The views, however, most often challenged in the Keynesian theory are the special theory of the fall of profits, the "purely" monetary interest theory, and the attitude toward price and wage reduction.

Keynes's "normal psychological law" that in the short period, as income rises, consumption rises, but not as much, is probably on balance nearly as well established empirically, as a statement of general tendency, as the broader statement that consumption does not vary inversely with the rate of interest. Yet somehow it has roused much more antagonism. The writer suggests, however, that conservatively inclined writers would accept the doctrine much more readily if they realized that it is not put forward as an *exclusive* business cycle theory, or theory of the collapse of marginal efficiency of capital. Keynes is

²¹ Paul A. Samuelson, "Full Employment after the War" in Harris, ed., *Postwar Economic Problems*.

perfectly well aware that there are any number of other forces which might affect business expectations. Though he does not consider the effects of new invention in the *General Theory* (and this, as we shall see shortly, is a very important point), Keynes certainly does not deny that they must be reckoned with in any actual situation.²²

One does not, in order to follow the Keynesian analysis, have to feel that the failure of consumption to rise, as output rises, is always the sole cause of the collapse, or even in many instances the most important cause. A decline in the rate of invention, or of population growth, or a simple shock to "confidence" might all, at times, be equally important. What one does have to believe is that current investment opportunities *vary*, or rather that they are not "boundless" and in a "given" situation and over longer or shorter periods can be exhausted. Failure of consumption to rise is merely one of many forces which, in a particular case, may potentially cause trouble.²³

In considering the "purely" monetary theory of interest, this would appear to be the most radical departure from accepted doctrine in the Keynesian system and it has certainly given rise to the greatest amount of misinterpretation. The truth of the matter is that in full-employment equilibrium the Keynesian interest rate theory is supplementary, rather than contradictory, to that of Marshall. Since this point is so widely misunderstood, particularly by many writers influenced by Keynes, it is worth some elaboration.²⁴

Keynes, as is well known, says that the rate of interest is "solely" determined by the interaction of "liquidity preference" and the quantity of money. But let us suppose that we have full-employment equilibrium and that some massive new invention is made which greatly increases profit expectations on the use of additional capital. Business men as a result bid against one another for current real savings—*i.e.*, for free resources to be used in producing additional investment goods and exploiting the new opportunity. Pre-Keynesian writers would argue that, unless current real saving increased, the money rate of interest would have to rise, sooner or later, or else there would be an inflation.

But Keynes's theory would reach exactly the same conclusion. *At the same time* in which business men are bidding against one another for free resources they are also bidding against one another for in-

²² Keynes, *op. cit.*, p. 245.

²³ But see the distinction between "objective" and "institutional" shortages developed below, Part IV.

²⁴ For a point of view on the problem of Keynesian interest theory rather similar to the writer's, see D. H. Robertson, "Mr. Keynes and Finance," *Econ. Jour.*, Vol. 48, No. 190 and 191. Also *Essays in Monetary Theory* (London, 1940).

creased transactions and precautionary cash balances.²⁵ That is to say, "by definition," liquidity preference has increased—therefore the interest rate—barring an increase in MV —must rise.

Some Keynesians, however, might object that if liquidity preference, due to the "speculative" motive, declined at the same time in which the demand for transactions balances rose, there might be no change in aggregate liquidity preference and hence, barring an increase in M , no change in the interest rate. This argument, however, could be true only for a short interval. At best the process would operate only as an increase in the velocity of money. Now, as everyone knows, increases in M or in V can hold down the money rate below the "real rate"—but, *in* full employment, only at the expense of a price rise. If a limit to monetary inflation is reached, the "real" relationships once more reassert themselves.²⁶ All this may be put in terms of liquidity preference without in any way altering the essentials of the problem. One can say that, until the "money" rate equals or surpasses the "real" rate, liquidity preference for transactions balances to use in exploiting investment opportunities will be "insatiable."²⁷

It is in the case of unemployment that Keynes's interest theory makes its greatest contribution. For if the rate of interest be explained primarily in terms of demand and supply for free resources, or "capital disposal," how can one explain the existence of a rate at a time when "free resources" (starving men) are walking the streets unclaimed? The Austrian minimum rate knows no such problem. With the Austrians, barring frictional and cyclical problems, there is always full employment and free resources are always kept scarce by "time pref-

²⁵ Haberler, *op. cit.*, chap. 8.

²⁶ In this discussion I use the term "real" rate in the first Wicksellian sense mentioned *supra*, note 16.

²⁷ Lord Keynes, it is true, has written, "I hold that we can be quite sure that a rise in the rate of interest (assuming no favorable changes in the demand schedule for investment) will decrease the actual aggregate of savings. This last statement embodies an essential element in my doctrine and offers a useful shibboleth for distinguishing those who fundamentally agree with the underlying thesis from those who differ." ("Mr. Keynes' Consumption Function. Reply," *Quart. Jour. Econ.*, Vol. LII [Aug., 1938], p. 708.) But this statement in essentials reduces to the proposition that, if the money rate were raised above the "real" rate, there would be a deflation and unemployment.

Furthermore, many pre-Keynesian writers would probably see little point in it for they might ask why the rate would go up unless there *were* a favorable change in the demand schedule for investment. Most economists, however, can easily conceive of short-term speculative fluctuations in the demand for money by which the money rate might temporarily rise even though there had been no fundamental change in the investment demand schedule. Practically everyone would concede that under such circumstances deflation would be likely to follow, accompanied by a probable reduction in actual saving. By stressing these possible speculative increases the Keynesian liquidity preference analysis does make a worth-while contribution, but the extent to which it represents any really new discovery, in this respect, can be considerably exaggerated.

erence"—i.e., too high a rate of current consumption to allow a full realization of productive possibilities. Only by some such analysis as Keynes's can one explain why the rate does not go to zero in times of unemployment.²⁸ The Keynesian theory of the *minimum* rate of interest is therefore a real, a substantially new, and a valid addition to the body of economic science. For the rest the "purely monetary" Keynesian theory is largely a matter of definition, calling attention to certain important short-run speculative factors but not seriously varying the ultimate essentials of the problem.

Keynes's criticisms of Marshall for attempting to derive a theory of interest from the marginal efficiency of capital are not very fair and should apply only to the minimum rate under more or less stationary conditions.²⁹ It is true, as Keynes says, that, barring change, expansion, etc., and the effects of liquidity preference, investment, under Marshall's line of reasoning, would be carried to the point at which both the marginal efficiency of capital and the rate of interest would be zero. Therefore the marginal efficiency of capital cannot explain a minimum rate in the absence of dynamic factors. But what seems overlooked is that, with dynamic factors and *constant* change, a constant flow of invention, etc., can create new investment opportunities as fast as the old ones are exploited and thus, if invention keeps ahead of accumulation, a permanent scarcity premium on free resources or capital disposal (the "real" rate of interest) could be maintained *though the economy uses no money whatever*.³⁰

²⁸ Keynes's exposition in the *General Theory* occasionally gives the impression of implying that he believes reduction of the rate of interest to zero would suffice to set free adequate investment without increasing the propensity to consume. But such an interpretation seems counter to the whole general tenor of his point of view and Marshallian inheritance.

²⁹ Keynes, *op. cit.*, p. 184.

³⁰ Compare Silvio Gesell, *The Natural Economic Order* (San Antonio, Free Economy Publishing Co., 1934), p. 260. "Let us assume that a costly machine is discovered with which everyone can double his present production. This would cause an unprecedented demand for loan-money to purchase the new machine. . . . Even if interest upon loan-money had disappeared this enormous new demand would cause its reappearance . . . interest might even reach an unprecedented height."

Gesell's famous "economic parable" so highly praised by Keynes (see Keynes, *op. cit.*, p. 356), tacitly assumes that there are no competing borrowers. Even if a man *cet. par.* were willing to give away a store of real wealth without demanding any real premium (interest) in return, in order to save deterioration and storage charges, the appearance on the scene of a crowd of borrowers clamoring against one another and offering higher and higher percentages of the prospective real gain would soon bring about the existence of a real rate of interest—an excess of "value" in the commodities returned over that lent.

Even though one set of opportunities were exhausted, *constant* changes, the appearance of new machines as the old were installed, could forever maintain a real rate of interest. The difficulties of figuring this value excess *in natura* are obvious but do not go to the essence of the problem.

Once we understand the basic factual assumptions of the Keynesian interest theory in this way, even the much criticized observations regarding interest in Chapter 24 can be given an interpretation which, in the writer's opinion at least, serves to reconcile them with much pre-Keynesian thought. In Chapter 24 Keynes is assuming that "contemporary conditions" are virtually those of a stationary state. Population is not growing very much, foreign investment is not growing, important new inventions are not being introduced, tastes are not changing significantly. Yet the propensity to consume remains low. If we think of England in 1935, these assumptions are not without support. If there were full employment, a flow of new capital instruments would be possible which might soon reduce the pure rate of interest to zero. But interest does not fall because, and only because, of liquidity preference. Nothing but the excessive holding of money and other liquidity substitutes prevents a zero rate. Further (though this point is not much developed), there is an implication that even with a zero rate, profit expectations might not be high enough to call forth sufficient investment.³¹ Under these assumptions the advocacy of the euthanasia of the *rentier*, of the socialization of investment, etc., all follow quite logically. But *only because of the facts assumed*. The policies suggested in no way follow from the Keynesian theoretical analysis *per se* and if one believes, with the present writer, that these particular assumptions of fact need not be generally true, then quite different results could follow. Keynes did not say that "interest rewards no genuine sacrifice" or that "there are no intrinsic reasons for the scarcity of capital." He said, "Interest *today* rewards no genuine sacrifice" and the word *today* applies to all the discussion which follows.³² But now in 1945 when "today" has faded into "yesterday," we are entirely free to revise our estimates of "tomorrow"—and with them our suggestions for economic policy.

A survey of the Keynesian analysis would not be complete without mention of price and wage reduction. Here, too, there is much less real conflict in *analysis* between Keynes and most other economists than is usually thought. Keynes admits regarding both price and wage cuts that the release from active circulation of transaction balances may help

³¹ Keynes, *op. cit.*, p. 372. There is some apparent inconsistency between Lord Keynes's admission, on the page referred to, that the "motive towards risk-taking" might be "unduly diminished" by high progressive income taxes, etc., and his later implication, p. 376, that the entrepreneurs are so fond of their work that they do not need the profit incentive. This paradox can be solved, however, I believe, by realizing that Keynes is tacitly assuming an institutional framework in which there is little net new investment. See the discussion below, Part IV.

³² *Ibid.*, p. 376.

satisfy liquidity preference, due to the speculative motive and bring down the rate of interest, with, *ceteris paribus*, favorable results.³³ Regarding wages he also admits that wage reduction may help by producing an "optimistic tone in the minds of entrepreneurs which may break through a vicious circle of unduly pessimistic estimates."³⁴ Nor does the Keynesian view conflict with Professor Slichter's "selective" wage cut theory.³⁵ Furthermore, Keynes's analysis does not necessarily deny, though it leaves largely unmentioned, those ingenious sequence constructions by which (provided only that one accept the hypotheses) it can be shown that the general wage level will fall faster than prices and income, or prices faster than income, or whatever sequence the particular writer chooses in order to show that investment may increase as the result of a temporary rise in profits. True, Keynes does not consider that these policies, practically speaking, are very promising, but he does not deny their possible utility under appropriate circumstances, and conservatives should admit that, at least on a purely analytical plane, Keynes's case in which prices fall indefinitely *pari passu* with wages is just as hypothetically possible as their own.

What Keynes is fundamentally attacking is the attitude which blames all, or nearly all, unemployment on the insistence by labor upon "too high" a real or money wage level. If only labor would take a low enough wage, it is said, there would always be full employment. As a consequence it is easy to decide that virtually all unemployment is "voluntary" since, however innocent in intent laborers may be, if they were not "voluntarily" insisting upon too high a wage men would find jobs. ✕

Such a point of view is always a plausible one. First because of mistaken analogies from partial-equilibrium demand-curve analysis, but second, and more important, because it is undeniable that, if men would work for nothing (zero wages) or pay to be employed (negative wages), they *could* all find jobs. Such contentions are true; but what practical relevance do they have? Since of course what people want is not work but work plus pay, since in fact it is only in rare instances that men work for zero or negative wages, the zero or negative wage argument seems irrelevant. Once it is ruled out, circumstances are clearly conceivable in which the most drastic wage reduction (short of zero) would not increase employment. Under such circumstances it is submitted that it is permissible to speak of "involuntary unemployment" and to say that it exists.

³³ *Ibid.*, p. 263.

³⁴ *Ibid.*, p. 264.

³⁵ For Slichter carefully faces the problem of effective demand. See S. H. Slichter, "Labor After the War," Harris, ed., *Postwar Economic Problems*.

The contrary view may be largely traced back, it is submitted, to the basic cleavage of assumptions regarding investment outlets already spoken of. Should one accept or approximate Professor Knight's implication that investment opportunities are always "boundless," or nearly so, one may indeed maintain that relatively small wage cuts would serve to break log jams of entrepreneurial activity and put people back to work.³⁶ Thus, without being either inhuman or cruel, one might well say that most unemployment was "voluntary." But if one follows Marshall, Taussig, Schumpeter and many others in believing in the possibility of a stationary state, then during periods of slack investment demand it might well be the case that drastic wage reduction would not increase employment. Once a considerable variability of investment outlet, relative to the propensity to consume, is assumed, the desirability of wage cuts as compared with other policies turns (barring debates of social philosophy) upon the fundamental investment outlet situation. Such I believe to be the position taken in the *General Theory*.

Coming to the matter of price reduction, we must not overlook the suggestion offered, for example, by Haberler that "sooner or later" price cuts will present the hoarder with such bargains that he will find an "irresistible temptation" to dishoard.³⁷ In the writer's opinion this idea is probably correct, analytically. If one has a million dollars in cash and can buy the Empire State Building for a dime, it is quite likely that one would "take a chance" and do so. But to use this idea as a justification for sole reliance upon wage or price reduction as a cure for depression implies a faith in the strength of the institutional structure of the present system which few people can share. During a violent depression the statement that "sooner or later," some day, at some indeterminate point, things will stop getting worse is more likely to produce revolution than reassurance. Furthermore, even on a purely theoretical plane, dishoarding may stop a contraction, it is true; but there is absolutely no guarantee, if estimates of the future are pessimistic, that dishoarding, induced by price reduction, will make the system expand sufficiently to reattain full employment. One must distinguish between the price cut which impels a man to buy an *existing* real asset and the price policy which will induce him to embark upon the creation of a new one.

Finally, there is a sort of mystical association in many people's minds between Keynesian unemployment equilibrium and "hoarding," and

³⁶ In fairness to Professor Knight it should be remarked that his doctrine that there is no limit to the use of capital need not necessarily be taken to mean that there is no limit to *current* investment.

³⁷ Haberler, *op. cit.*, p. 403.

this association lies at the bottom of much of the current cry for the taxation of idle hoards. However, it is perfectly conceivable Keynesian unemployment equilibrium could both arise and continue without the slightest change in MV ever having occurred. Suppose some shock to the system which greatly increases the risks of net new investment. As a result people decide not to save but to spend all their incomes. As a result prices in the consumers' goods industries go up, but since no one will expand his scale of operation on any terms, investment goods industries remain depressed and men are unemployed. There is no hoarding, and no change in velocity, but merely a rise in the price of consumers' goods.³⁸ Some of the more enthusiastic adherents of the idea of taxing idle hoards have forgotten that merely increasing monetary demand does *not* mean increasing employment if risks are simultaneously increased. But this mistake is not fairly attributable to the essential body of the Keynesian analysis.

IV

From the foregoing survey of the essential framework of Keynes's analysis we may conclude that his teaching is not so much a contradiction of Marshallian theory, or its modifications at the hands, say, of Taussig, but a supplemental development. Keynes does definitely break with the idea that (short period) aggregate consumption will rise as the interest rate falls and vice versa, but, save for this, his theory of interest and Marshall's do not contradict each other—rather they deal with different worlds. Keynes's monetary theory (in a non-*tautological* sense) applies to conditions of less than full employment. Marshall's theory remains correct (as far as Keynes's theory is concerned) in a world in which there is full employment and a brisk demand for capital.³⁹ Again in the matter of wage and price policy the differences between Keynes and modern economists who disagree with him are often not differences of analysis, but differences of opinion. The dispute concerns which policy, in a given institutional environment, is most *likely* to yield good results. In other words, both sides should grant the theoretical *possibility* of each other's hypotheses under appropriate circumstances. The important problem is which set of assumptions most nearly fits the actual situation at a given time.

³⁸ In terms of the quantity equation P will rise, T will fall and MV remain unchanged.

³⁹ This point is well illustrated in Mr. E. V. Morgan's article, "The Future of Interest Rates," *Econ. Jour.*, Vol. LIV (Dec., 1944), p. 340. After a long discussion on Keynesian lines one finds the following: "If on the other hand a high level of employment is maintained, then the importance of the rate of interest as a selector between investment projects will be greater, and if it is necessary to restrict investment in order to prevent inflation it would be better to allow interest rates to rise rather than reimpose controls." (p. 350).

Yet despite the extremely large area of agreement which we have discovered, there are many economists to whom Keynesian economics remains distasteful and who tend to regard it as being, in large part, a depression vagary. In the remainder of this paper the writer wishes to develop two reasons, one justified and one mistaken, which lead many people to dislike Keynes's teaching. He wishes further to offer some suggestions regarding the effect of these two attitudes upon the future of Keynesian economics and economic thought in general.

We have already seen that there are economists who believe that current investment outlets are virtually always and *per se* boundless.⁴⁰ If this idea were true, Keynes's teaching would largely be nonsense. The writer has given reasons elsewhere for disagreeing with this doctrine; nevertheless, the matter of investment outlets is absolutely basic and does call attention to one of the most vulnerable points of the Keynesian school.⁴⁰ If one were to summarize the weaknesses toward which the Keynesian point of view inclines, as compared with the weaknesses of pre-Keynesian theorists, it is submitted that the divergent tendencies could be compressed within a very simple formula. The "classical" writers tended to pay too little attention to obstacles to effective demand; the Keynesians tend to slur over obstacles to supply. But, as Marshall pointed out in his famous scissors analogy, *both* supply and demand must be considered in any real situation. Here there is certainly much ground for criticism, and the Aristotelian golden mean appears now, as ever, indeed difficult to achieve.

To develop what the writer believes to be the chief weakness of the Keynesian approach we must make use of a not very satisfactory distinction between "institution" or "ideological" barriers to investment, on the one hand, and "objective" ones on the other. Many writers using large elements of the Keynesian analysis tend to consider that "shortages" of investment outlet trace ultimately to "objective" factors—as population growth—largely beyond the reach of policy. Other writers place primary emphasis upon "institutional" factors such as taxation, foreign trade policy, unwise wage policy, etc. It is obvious that practically everything is in the last analysis institutional or ideological—and not least of all the propensity to consume and the birth rate. But when we apply the distinction indicated in a common sense manner, what are the repercussions upon Keynesian theory?

The writer believes both in the theoretical possibility of a stationary state and in the variability over time of actual investment outlets. Nevertheless, it is submitted that usually, and certainly at the present time, the ultimate source of "shortages" of investment outlet is more likely to be ideological or institutional than objective. But does such a

⁴⁰ D. McC. Wright, "Professor Knight on Limits to the Use of Capital," *supra* note 17.

point of view destroy the usefulness of the Keynesian system? To the writer it does not. The real distinction should be not between "objective" barriers and "institutional" barriers but between barriers which can be *quickly removed* and barriers which can not. The fundamental problem with which Keynes is concerned is that of effective demand. The basic contention of his theory is that the propensity to consume and the inducement to invest must stand in proper relation to each other if there is to be full employment. The essential weakness of the exchange economy which he stresses is the problem of secondary deflation. The theory is, in itself, as good an argument for trying to increase the inducement to invest, as the propensity to consume. But whatever we do we must act *in time*.⁴¹

It may very well be true under "given" circumstances that the "shortage" of investment outlet originally precipitating the crisis is due to institutional disorganization (*e.g.*, currency difficulties, etc.) which might eventually be removed, or to international rivalries of a similar character. But while we are waiting for these longer-run policies to take effect, the economic structure may be wrecked by deflation. We must attack both problems at once. A truly rounded policy seeks *both* to maintain effective demand and to bring about a basic adjustment.⁴²

It is a weakness of some followers of Keynes—notably Mrs. Robinson—that they tend to see but half of the problem. Such an attitude may be grounded in implicit hostility to capitalist mores, or spring from other sources, but whatever the reason, the result—if applied to a capitalist economy—must be interpreted either as faulty economics or mistaken policy. Such an attitude, for example, easily converts some American applications of Keynesian doctrine into a species of eco-

⁴¹ Which does not mean to say that we necessarily should act *at once*.

⁴² I wish to make it clear that this point of view in no way represents a change from the ideas I have been trying to express since I first began to write on economic problems. The charge is sometimes made that certain American authors, including the writer, who use large elements of the Keynesian analysis, favor spending "without adjustment." Such a charge is completely unwarranted as may be seen from the following quotations from my *Creation of Purchasing Power*, Chapter IX: "Purely monetary problems are not to be compared in magnitude with the problem of possible inflationary demands from organized groups." "The constant demands on the part of labor for higher money wages are an obstacle which practically every writer on purchasing power stabilization has mentioned. . . . Hansen . . . Meade . . . Kaldor . . . Ezekiel." "The problem of the labor unions is, however, only one aspect of the general monopoly problem. If we spend money to increase purchasing power, special groups . . . may raise their prices and absorb the additional funds without any real increase in consumption"; or again in Chapter III: "If too enthusiastic a program of progressive taxation were imposed, the inducement to invest might be seriously reduced and the stimulus to consumption"; or in Chapter VIII, "It should be clear though that no program of purchasing power injection which expects to avoid inflation can entirely escape the necessity of taxation at some point of time." Or Chapter IX, "We in the United States are also too prone to minimize the international aspects of the problem. . . ."

conomic isolationism. For even if investment outlets in the United States are insufficient relative to the propensity to consume, due, say, to declining population growth, that still does not explain why we cannot find foreign investment. Again, the monopoly problem, though easily fitted into the Keynesian scheme, is largely left aside in the *General Theory*. The absorption of increased demand by pressure groups of labor and capital, and the consequent failure of employment and output to increase proportionately to a given monetary stimulus, are often slurred over.

Keynes himself could well say that he could not be expected to cover the whole field of economics in one book. However, in the hands of some of those using his analysis, the slurring over of monopoly problems, the ignoring of his warnings as to the adverse effects of excessively heavy progressive income taxation upon the marginal efficiency of capital, the disregard of his cautions regarding money wage changes in *either* direction, have all had serious effects. Few economists, "Keynesian" or otherwise, in this country at least, go so far as to say that we do not need to worry about investment incentives. Nevertheless the idea has been put forward, at times, and derives a certain amount of support from Mrs. Robinson's *Essay on Marxian Economics*. She writes, "With the notion of the supply price of capital, the moral justification of profit as a necessary cost of production disappears, and the whole structure of the orthodox apology falls to the ground."⁴³

The genesis of this doctrine is to be found in some unguarded statements by Keynes himself in his "concluding notes." As earlier pointed out, the weakness of that chapter is that it disposes toward incautious generalization from the particular English institutional framework, as of the period between world wars. It is very true that the modern large scale corporation may maintain its business for a long time, and even expand considerably with internal funds, without having any very large, and in some cases without having any, profit expectations. It may also be true (though I think the point overstated) that many entrepreneurs get so much fun out of their work that they would be willing to work virtually for nothing. But these two statements do not add up to the conclusion that profit is not needed in a dynamic economy or that we do not need to worry about investment incentives.

We must be careful to distinguish between investment and *net* new investment; between "rents," wages of management, and monopoly gains, on the one hand, and risk-profits on the other. Whether the entrepreneur enjoys his life so much or not, unless he is working with internal funds *quasi* automatically flowing in to him, he has to borrow

⁴³ Joan Robinson, *An Essay on Marxian Economics* (London, Macmillan, 1942), p. 74.

or to sell stock, and in order to do so he must offer the would-be purchaser of equity capital some expectation of profit. It is indeed paradoxical that anyone should maintain that investment incentives are not needed, at a time when the scarcity of venture or equity capital has been one of the most vexatious problems of corporate finance in the United States. We need not discuss here the moral pros and cons of capitalism. The only question is: "Given the capitalist institutional set-up, are not high profits required in risky net new investment?"⁴⁴

Problems like these may more plausibly be brushed aside in England where net new investment has been proportionately less important than in the United States. The truth seems to be that Keynes's entrepreneur, who needs very little profit incentive to keep him at work, is not the Schumpeterian entrepreneur—the innovator, the moving spirit in a rapidly growing new corporation, in a dynamic capitalism—but a Schumpeterian "manager"—head of some semi-monopolistic trustified, "rationalized," well-entrenched English firm with ample internal funds—one of the uncrowned but probably titled rulers of what has been called the "conservative corporative state."⁴⁵ But in America where net new investment is still important, where the arteriosclerosis of capitalism is less advanced, one deals still, in many cases, with a very different problem. Unless we socialize investment it is still necessary to consider profit expectations and the inducement to invest. The Keynesian schema, if such points be overlooked, does contain an implicit possible stalemate. If demand is raised by drastic redistribution, supply may be so discouraged that no new real investment will be forthcoming, and no increase in real consumption.⁴⁶

The fact of the matter is that economists influenced by Keynes have

⁴⁴ Since the original manuscript of this article was prepared, Mr. G. F. Shove has made the same point. See Shove, "Mrs. Robinson on Marxian Economics," *Econ. Jour.*, Vol. LIV (Apr., 1944), p. 47.

Mr. A. P. Lerner argues that high progressive income taxes do not hurt the inducement to invest if gains and losses can be made to cancel one another out. The investor is then working "on commission" for the government. But compare this doctrine with Sir William Beveridge's recent statement (*Econ. Jour.*, Vol. LIV [Dec., 1944], p. 161): "The government . . . are fighting unemployment. They ought to be planning for productive employment. But one cannot do that unless there is something one desires *passionately* (italics added) to see accomplished. . . . Experience in peace time has shown that the desire of men who are already above want to increase their profits by investment is not a strong enough motive or sufficiently persistent . . . to produce a demand for labor which is strong enough and steady enough." But after all do men desire *passionately* to work "on commission" for the government at one or two per cent? Furthermore Lerner's doctrine entirely overlooks all the considerations regarding the family motive adduced by Schumpeter.

⁴⁵ Compare Keynes, *op. cit.*, p. 373: "Experience suggests that in existing conditions savings by institution and through sinking funds is more than adequate."

⁴⁶ Lord Keynes cannot be charged with *overlooking* this possibility in the *General Theory*, but the writer does suggest that he tended to underemphasize it.

been little, if any, more immune to humanity's incurable weakness for false generalization than any others. Some pre-Keynesian writers were guilty of erecting special cases into universal laws. Keynes showed the falsity of their generalization by working out special cases of his own. But he had scarcely done so before some of his disciples showed a tendency to ascribe to Keynes's special cases an equally false generality.

As an example, Mrs. Robinson in reviewing Professor S. E. Harris's *Economics of Social Security* rebukes him for holding contradictory ideas at the same time. "He accepts," she writes, "in the main Mr. Keynes' system of ideas, but also accepts the view that high wages cause unemployment, and that an increase in thriftiness has a direct effect (apart from its reaction on the demand for money) in lowering the rate of interest."⁴⁷

The first of these criticisms illustrates very well the pitfalls of the simplified, aggregate, static technique. There is nothing in Keynes's analysis to prevent one from feeling that too high a rate of wages in some *particular* industry or too rapid a rate of *increase* in money wages generally *may* at some times and under some circumstances cause unemployment.⁴⁸ That is what Professor Harris was implying and Mrs. Robinson is quite unwarranted in waving such considerations aside. In the same way an increase in thriftiness could conceivably have, at times, a direct influence on the rate of interest apart—excepting always, of course, "by definition"—from the demand for money. The Keynesian "purely" monetary interest theory, as we have seen, is sometimes and in some senses (but by no means always) a mere logical quibble or tautology.

To summarize, there are many ways in which dogmatic simplification and the slurring of obstacles to supply might prejudice a conservatively minded economist against the Keynesian analysis—especially in the light of certain offshoots which have grown from it. But none of these points touch the basic Keynesian schema. They do indicate an important error of emphasis and, if capitalism is to survive some of the outgrowths of Keynesian doctrine, this lack of proportion must be corrected. But the essential Keynesian framework remains unaffected. It

⁴⁷ Joan Robinson, "The Economics of Social Security," a review, *Econ. Jour.*, Vol. LII (1942), p. 242. S. E. Harris, *The Economics of Social Security* (New York, McGraw-Hill, 1941).

⁴⁸ Regarding the possibility of too rapid an increase in the general money wage level, it may be true that in the "long run" all values tend roughly to arrange themselves about the wage-unit *if* there is no further disturbance. But a money wage increase might put a special premium on labor saving devices and aggravate short run, technological, frictional, unemployment. Further, if the *trend* upward is too rapid, adjustment may always lag behind. Compare Professor Frank Graham's discussion of some of these points, "Keynes v. Hayek on Commodity Reserve Currency," *Econ. Jour.*, Vol. LIV (Dec., 1944), p. 422.

is entirely neutral and may be accepted as scientific truth by economists of the most diverse political bias.

V

Yet again we are left with the question: Why is the essential Keynesian schema still attacked today? To answer I believe we must probe some of the less justifiable grounds for criticisms. If writers—such as Professor Knight—who approach the problem on various basically different factual assumptions and hence differ from Keynes in essential scientific analysis are left aside, the explanation of much opposition to Keynesian ideas lies, it seems to me, not so much in the specific weaknesses just reviewed as in the uncomfortable nature of the theory itself, especially in the light of traditional American legal and political theory. One can follow the main outlines of Keynes's doctrine and still believe in capitalism, but one cannot follow Keynes's doctrine and believe that capitalism will always and "automatically" cure itself of disturbance and unemployment. There lies the rub.

For if one assumes, as most economists do, that the intensity of demand for new capital instruments varies greatly over time; if one concedes, as statistical figures make unavoidable, that the short-run propensity to consume does not rise as interest and profit expectation fall; if one feels that even drastic reduction in the rate of interest (supposing it to be obtained) does not in the short period necessarily give rise to adequate investment demand; if one admits, with most economists, that wage and/or price reduction cannot *always* be relied upon to remedy the difficulty, then a case is necessarily made out, from time to time, for government intervention of some sort.⁴⁹ Mere uncritical reference to "insatiable" wants or unused productive possibilities is no longer possible.⁵⁰

⁴⁹ Certain conservative writers might deny this conclusion and say that the thing to do is to prevent the boom by high interest rates instead of "filling in" in a slump. Were one to assume that the economy was initially in perfect adjustment, with full employment, this doctrine might be correct. But our society is already permanently distorted with a relatively overbuilt capital goods industry. Full employment only comes (if then) in a boom. The result is that a policy of preventing a boom would leave us in prolonged slump and unemployment. Furthermore, due to the acceleration principle, any expansion to full employment that is at all rapid would be likely to produce further distortion. See my *Creation of Purchasing Power* (Cambridge, Harvard Univ. Press, 1942), p. 29 *et seq.*

⁵⁰ Of recent critics Dr. L. Albert Hahn seems to be among the few willing, apparently, to challenge the Keynesian treatment of this fundamental point. In his brochure, *Deficit Spending and Private Enterprise*, Post-war Readjustment Bulletin No. 8 (Chamber of Commerce of the United States, Washington, 1943), he writes (p. 26): "How is it that no production gets started for articles which would be consumed by the former unemployed? For we cannot seriously maintain that the unemployed, if converted into laborers, would save to such an extent that the product of their labor would not meet demand." As to this it may be said, first, that if reliance is made upon the demand of the

True, it may be argued that much of the variation in investment outlets is institutional in character and that our fundamental task is the removal of these institutional frictions. Again Dr. Samuelson's distinction between the long- and short-run behavior of consumption furnishes a line of possible reconciliation between Keynes and Professor Knight. Knight's view regarding "boundless" uses for capital would be correct if tastes, or if consumption, changed adequately, and perhaps in the long run they might. But whether the trouble be due to institutional barriers or to a temporary failure of consumption to rise, or of wants to change, there remains an interval in which demand must be maintained or deflation will ensue. *Something* has got to be done.

Certainly, as has been indicated earlier, there are other policies besides increasing the money supply which are theoretically adequate under proper circumstances. It is a matter for the specific analysis of particular situations.

But to return specifically to attacks upon the Keynesian schema, it may not surprise economists, particularly European economists, to learn that we cannot always trust the competitive mechanism to straighten things out. In more popular conservative circles, however, especially in the United States, I believe that Keynes's ideas derive much of their unpopularity because they form the most widely known arguments for intervention even though such intervention may be quite capitalist in nature.

The trouble with the Keynesian solutions, both for the cycle and for stagnation, is that they imply effort, thought, policy and discretion. No one policy can have eternal validity in a changing world. As the business situation alters, it is necessary to swing from encouraging expansion to discouraging it—and back to encouraging it again—and to use a whole battery of weapons at appropriate times. True, all this may be done toward preserving adequate general security in a competitive, democratic capitalism; but that will never satisfy individuals who yearn for the automatic self-regulating system which the *laissez-faire* economists thought they had found. "Government of laws and not of men," is an idea deeply rooted in the American mentality, and cherished by nearly all of us, but only in the most ultimate sense is such an ideal possible in a developing economy. Where policies must be changed from time to time, someone must do the changing.

It is because the Keynesian analysis brings out this fact so clearly

newly employed *alone*, then if they save *anything* it will prevent receipts from covering costs. Next, part of the money costs of selling a given output of goods, under the private enterprise system (which Dr. Hahn is defending), are *profits* accruing to entrepreneurs. If *they* do not spend their receipts, costs and receipts will not be equal. Dr. Hahn's argument, in this respect, would only be correct under communism or some non-profit state in which there was no net saving.

that it is so disliked by the ultra-conservative. Whenever prosperity appears, even momentarily, there are always people to exclaim that "happy days are here again." We are in a "new era." There will be no more depressions. Such an attitude is both childish and dangerous. By encouraging excessive optimism it induces inordinate despair. The true friend of capitalism does not try to claim for the system a performance which it is obviously impossible for it to give. He is on sound ground in pointing out that cyclical fluctuations are an inevitable concomitant of *rapid* technical change; that we cannot avoid one without destroying the other; that nevertheless the proper use of compensatory financial techniques, capitalistically orientated, can reconcile to a considerable extent, within the capitalist framework, the conflicting aims of security and progress; that such a more-secure society would be likely to leave much less room for individual tyranny and oppression than the completely planned state; that the advantages of comprehensive planning and the number of difficulties which it would avoid are absurdly overexaggerated at the present time—all these things the believer in capitalism can say. But he cannot follow the main lines of Keynes's argument and say that the system, left to itself, will always, and "automatically," bring forth sufficient effective demand, for—if we accept Keynes's teaching—that is obviously not true. And if the case for capitalism is made to turn upon a supposed "automatic" power of general adjustment, and if people really try to follow such a policy, a breakdown, it is submitted, is inevitable and the capitalist system will become progressively discredited. We must face the fact that if the case for capitalism is always kept tied up with the case for complete non-intervention, the case for capitalism, in a world demanding security, will be lost.

Thus, in speculating on the future of Keynesian economics, there is room for tremendous development on many lines without destroying the fundamental fabric. There is a need for continued sequence analysis. There is need for less facile manipulation of large aggregates and more particular research. We need less tautology and more investigation. We need a more explicit recognition of our hidden biases and (if we wish to keep the present system) a greater understanding and regard for the essential institutional requirements of capitalism. Obstacles to supply must be given consideration as well as failure of demand. Along these lines the future of Keynesian economics should be one of steady development and synthesis with what has gone before.

But a great danger to Keynesian economics, and economics generally in the United States, is that unwillingness to recognize the nonautomatic nature of capitalism may lead us in prosperity to discard or ignore the greater part of the Keynesian system. Shall we be like army officers

always preparing to win the last war? During a boom, will our graduate students be trained primarily to prevent inflation—and hence be unprepared in slump? Will they in slump be trained primarily to prevent slumps and so let the next boom become an inflation? When will the public and many economists discover that in the realm of policy there is no single eternally valid measure and all is relative? In the future of Keynesian economics there is much room for improvement. But if we turn away from the fundamental system and neglect the warnings which it gives regarding effective demand, it will be a major scientific disaster—a disaster furthermore which, I submit, will appreciably reduce the chances for a survival of capitalism.

THE CHOICE OF EXCHANGE RATES AFTER THE WAR

By GOTTFRIED HABERLER*

I. *The Objectives of Foreign Exchange Policy*

Policy concerning foreign exchange rates has to be subordinated to the general objectives of our international economic policy. These have been clearly stated in official declarations and one of them is to make the currency of different countries again freely interchangeable.

Applied to our particular problem, this implies that we want an exchange rate which equates demand and supply in a free market, that is, a market in which everybody is allowed to buy and to sell currencies of all countries. This is, of course, the ultimate ideal, which cannot be realized at once. All experts agree that in most countries more or less stringent controls of the foreign exchange market will have to be maintained for some time after the war. The scope, stringency and duration of these controls will be discussed later and will partly depend on the rates which are chosen. But certain features of a free market can and should be introduced right from the beginning: The exchange rate of a currency should be uniform, non-discriminatory. That is to say, the same rate should be applicable to all types of transactions and to all individuals, to commodity trade as well as to services, capital and interest payments. Applied to more than two countries, this implies that the rates should be consistent, that is to say, cross rates should be equal to direct rates. Another postulate is that rates should be as stable as possible.

Another partially conflicting objective of foreign exchange policy would be to influence the terms of trade. The realization of this objective would usually imply an overvaluation of the currency, because there is a strong presumption that the setting of a high level of a country's currency (or an appreciation) tends to improve the terms of trade and a low level (or depreciation) tends to deteriorate them.

So long as exchange control is maintained this objective can be attained to some extent, although the abstention from discriminating policies, which is implied by the postulate of uniformity and consistency of exchange rates, imposes severe restrictions on any attempt at doctoring the terms of trade. If exchange controls are altogether removed it will be found that for most countries there is very little or no leeway

* The author is professor of economics at Harvard University.

for a manipulation of the terms of trade through variations in the exchange rates.

Still another objective which, however, will play only a subordinate rôle in the immediate post-war period is the creation of employment. This viewpoint was prevalent during the depression years but still lingers consciously or unconsciously in the minds of many people. It is apt to result in the demand for policies opposite to those called for by the preceding objective: employment is fostered by an export surplus and undervaluation of the currency, whereas the terms of trade are (with rare exceptions) improved by an overvaluation of the currency (over- and undervaluation defined with respect to the equilibrium of the balance of payments in the absence of direct controls).

The employment objective of foreign exchange policy will hardly be an important factor immediately after the war; at least it should not be one in a rational system of economic policy, because it is not likely that there will be general unemployment due to a general deficiency of effective demand. That does not preclude the existence of much unemployment in particular industries or regions ("depressed areas"). But this kind of unemployment cannot be effectively dealt with by broad measures, such as currency depreciation or deficit financing designed to stimulate general effective demand. It needs more specific remedies.

II. *The Equilibrium Exchange Rate*

What methods are at our disposal by which the equilibrium rate can be determined?

A method which, *prima facie*, looks attractive would be to let the exchanges fluctuate freely to find their equilibrium position. This does not necessarily mean that there should be no control. In fact, it is certain that a system of "free exchanges" would lead to extremely undesirable results. It would incite capital flight and violent fluctuations. There are very few instances of really free exchanges in monetary history and none that could be called successful. One of the few examples is the French situation between the end of the First World War, when the French franc was unpegged, and its stabilization in 1926.¹ Such a free system would be even worse this time, because people everywhere are much more inflation-conscious than they were in 1919, and, hence, speculative reactions would be very quick.

One might think of a system of control which confined itself to

¹ See R. Nurkse, *International Currency Experience* (League of Nations, 1944), chap. 5. Compare now also Mr. Nurkse's *Conditions of International Equilibrium* (Princeton, 1945), which contains a careful discussion of how to define an equilibrium rate. The problem of definition is also discussed in my note, "Currency Depreciation and the International Monetary Fund," *Rev. Econ. Stat.*, Vol. XXVI, No. 4 (Nov., 1944).

preventing or offsetting capital transactions but allowed freedom to all commodity and service transactions. One difficulty with such a system is that exchange control in peacetime is never quite watertight and if exchanges fluctuate, the tendency toward capital flight becomes strong and serious leaks are likely to develop. This is a very important matter especially for all small- and medium-sized countries with long land frontiers.

If it were possible to prevent speculative capital movements, one of the most serious disadvantages of frequently changing exchange rates would be removed. But there remain other objections. There are speculative anticipations of changes in the exchange rate which are not in the nature of capital movement. Suppose a depreciation is expected and capital movements are effectively prevented. It would then be to the advantage of importers to advance imports and of exporters to delay exports² in order to profit from the change in foreign prices resulting from the expected change in the exchange rate. These speculative anticipations would tend to bring about the expected depreciation of the currency and to intensify exchange fluctuations. They could be eliminated only by a more severe type of control which went far beyond the prevention of capital movements. Moreover, frequent changes in the exchange rate are very disturbing to international investment.

There is still another important objection to letting the exchanges find their equilibrium by free fluctuations. Even if speculative fluctuations of all kinds were successfully prevented, and serious inflations avoided, the value of many European currencies, if determined in a free market by demand and supply, would be very low immediately after the war. While these war-torn countries will have very little to export, there will be a strong demand for imports, which would drive up the price of the dollar and other currencies. This condition can be expected to change gradually when production is resumed, thereby cutting down import demand and making available goods for exports. The question is now whether one should try to follow these shifts by letting the exchanges fall to very low levels at the beginning and then raising them at certain intervals, or whether it would be better to aim at a level which can be maintained in the long run. The latter method would imply, first, an overvaluation which would gradually disappear or even give way temporarily to an undervaluation.

This aspect of the question will come up for discussion again later on. At this point we note that a policy of free exchanges is difficult if the underlying situation is subject to rapid changes.

²If capital exports were permitted, there would be no incentive to delay exports, for exporters could leave the proceeds abroad until the foreign currency has gone up in price.

The upshot of this whole discussion is that a system of freely fluctuating exchanges is hardly acceptable. Occasional adjustments at irregular intervals is all that can be recommended to assure flexibility. This makes it all the more important to be as careful as possible in the selection of the initial rates.

III. *Purchasing Power Parity Calculations*

The commonly used method of calculating equilibrium exchange rates consists of computing purchasing power parities. Suppose we wish to calculate the rate of the pound sterling in terms of dollars on the basis of purchasing power at wholesale prices. If we take the first six months of 1939 as a base (= 100), the U. S. index of wholesale prices (Bureau of Labor Statistics) was at 140 in 1940; the British price index (Board of Trade) was at 170. Hence the purchasing power parity has changed, as of 1940, in the proportion of 140/170. If the actual sterling rate in dollars has changed in the same proportion, sterling is at purchasing power par. If not, it is either over- or undervalued according to purchasing power parity (at wholesale prices).

Purchasing power parity is at best a very crude indicator and can yield only rough approximations. But it is the only method that yields concrete results. If factors other than relative price changes are taken into consideration, it is hardly possible to derive a definite formula, which, like the purchasing power parity, yields concrete results. The influence of these other factors on the equilibrium rate can only be guessed. These factors can be most appropriately treated within a discussion of the major limitations of the purchasing power parity doctrine (1) under normal circumstances and (2) under war conditions with special reference to the direct controls (price control, rationing, allocation of raw materials, labor and machinery) which seem to deprive the theory of most of its usefulness.

(1) Under "normal" circumstances, that is, in the absence of extensive direct controls of trade, production, consumption, etc., and with trade relationships uninterrupted by war, the purchasing power parity theory is subject to the following limitations and difficulties:

(a) In the base period with which a comparison is made, the exchange rate may not have been at an equilibrium position. The currency may have been over- or undervalued. This difficulty can usually be overcome by choosing the base period very carefully.

(b) There is a choice between different kinds of price indices and price levels. Should we compare the movement of wholesale prices, cost of living, retail prices, prices of internationally traded goods, or domestic prices? This is a rather awkward dilemma. If the index is heavily weighted with prices of internationally traded goods, it is likely to

understate any existing over- or undervaluation of the currency, because internationally traded goods adjust themselves quickly as between different countries. (A well-known example where policy has been misled by the use of a wholesale price index weighted heavily with prices of internationally traded goods is the Czechoslovakian devaluation of 1934. An index was used which understated the overvaluation, and the depreciation proved insufficient and had to be repeated a year later.)³ A retail price or cost of living index is therefore preferable, but it has the disadvantage that a parallel movement of these indices need not be an equilibrium condition.⁴

(c) Relative price changes are not the only significant factors. Other factors which should be taken into consideration are tariff changes, spontaneous changes in international demand (due to changes in cost, in supply conditions or in consumer demand), capital movements, unilateral payments such as reparations, immigrant remittances, and interest payments (loss of foreign investment income is a good example). It can be shown that significant changes in these items require changes in the relative price levels, that is to say, in the purchasing power parity of the two countries. Take as an example Great Britain after the war. She will have lost a large part of her income from foreign investment and from shipping. In order to equilibrate her international accounts she will have to export more and/or import less. If direct control is barred, this will require a fall of her price level compared with that of the United States.⁵ By how much the pur-

³ For an instructive comparison between the Czechoslovakian and Belgian cases, see *Money and Banking*, League of Nations, *Monetary Review*, Vol. I, 1935-36, pp. 49 ff.

⁴ Attempts have been frequently made to substitute "cost parities" for "purchasing power (price) parities." (Cf. Sven Brismar, "Some Reflections on the Theory of Foreign Exchange," in *Economic Essays in Honour of Gustav Cassels* [London, 1933], pp. 69-74, and recently, Alvin H. Hansen, "A Brief Note on 'Fundamental Disequilibrium,'" *Rev. Econ. Stat.*, Vol. XXVI, No. 4 [Nov., 1944], pp. 182-83. See also my reply to Hansen, *Rev. Econ. Stat.*, Vol. XXVI, pp. 191-92.) The concept of a "cost level" is, however, several degrees more ambiguous than the concept of a "price level." Strange to say, cost of living has been often proposed as a measure of cost in general. (Cf., e.g., Henry Strakosch, "The Road to Recovery," Supplement to *The Economist*, Jan. 5, 1935.) A better indicator would be a wage index. But upon a little reflection it will become clear that a parity theory in terms of wages or any other prices of cost items is subject to the same limitations and qualifications as the ordinary purchasing power parity theory and, in addition to that, would have to make allowance for changes in efficiency of labor and other factors of production. If a country suffers from balance of payments difficulties or a depression in its export industries, it is one thing to emphasize as a cause the relatively high cost of production in its export industries and in industries that compete with imports or to demand their reduction as a cure; it is an entirely different thing to substitute "level of cost of production" for "price level" in the purchasing power parity equation.

⁵ But *international* prices (prices of exports and imports) will have to be the same as in the United States, allowing for transportation costs in the broader sense, including duties.

A word may be added on the theory of C. Bresciani-Turroni which has intrigued many people. (See his brilliant article, "The Purchasing Power Parity Doctrine" in *L'Egypt Con-*

chasing power parity has to be changed to secure equilibrium depends on elasticities of demand which are not sufficiently well known. For that reason, it is difficult to appraise quantitatively the importance of these factors.

(d) Why is it necessary at all to compute purchasing power parities? They are supposed to indicate the equilibrium rate of exchange. The latter is defined as the rate which equilibrates the balance of payments, *i.e.*, eliminates gold flows (except in the case of gold producing countries) and equivalent short-term capital movements. It could be objected that these phenomena can be observed directly and that therefore the existence of equilibrium or disequilibrium can be ascertained without having recourse to price comparisons. It is true that the existence of a disequilibrium can be ascertained by watching gold flows and short-term capital movements. But the purchasing power parity is supposed to indicate the approximate magnitude of the changes in the exchange rate which will be required for the restoration of equilibrium. Unfortunately, it is, for the reasons mentioned, not a very reliable indicator.

(2) Under wartime conditions calculations of purchasing power parities are, from one point of view, more useful than under normal conditions. The objections against the use of wholesale prices which we mentioned above fall away. Because the war has interrupted international trade, wholesale prices in the various countries can move independently. Therefore their relative change provides a better measure of comparative price level changes than in peacetime. Moreover, during the war inflationary changes have been very strong in some countries and may overshadow changes in international demand.

In other respects, however, the usefulness of purchasing power parity considerations is seriously impaired. The main reason is the policy of price fixing, rationing, allocation of raw materials, machinery and labor, etc., and the different degrees of severity and stringency of these controls in different countries. It is possible to argue that the existence of these controls makes purchasing power parity calculations entirely inapplicable. Take the case of Germany. Prices there have been more strictly controlled than anywhere else. Black markets

temporaine, Vol. XXV [1934]. A short version may be found in his *Economics of Inflation* [1937], pp. 107 *ff.*). This author defines the parity in terms of *export* prices. Naturally he finds that a parallel movement of export prices is an equilibrium condition only if the equilibrium terms of trade have not changed. In general, the equilibrium condition is not "exchange rates equal purchasing power parity," but "exchange rates equal purchasing power parity multiplied by terms of trade," taking all three items in index form. (*Op. cit.*, pp. 439 and 112.)

The theory is ingenious and the analysis very instructive, but as a criticism of the purchasing power parity it is a little unfair because nobody, so far as I know, has ever proposed the purchasing power parity theory in terms of export prices.

are probably less prevalent than in any other country. But rations are small and many things which are still available in the United States and in other countries have completely disappeared from the German markets. Is an unchanged price index of goods which are either severely rationed or are altogether unavailable in any way significant for the determination of the equilibrium rate of exchange? This can certainly be doubted; at any rate, special reasoning is required to establish such a significance. The rationale of the ordinary purchasing power parity is clearly insufficient. Why should low prices establish the presumption that a high international value of the currency is indicated, if at these low prices nothing or very little can be bought while in other countries, though prices are higher, rations are larger or goods are unrationed which in the first country have completely disappeared?

Moreover, if there is strict rationing, price control, allocation of labor, machinery and materials, in short, if the whole productive process is thoroughly planned and directed by the government, international trade must also be planned and directed. Imports are not only subject to duties and quotas but may be entirely monopolized or at least supervised by the government. Similarly, exports are completely regulated and at least dependent upon allocation of labor, materials, etc., to the export industries. Exports and imports may be cheapened by subsidies. Under these conditions the exchange rate also becomes a completely controlled magnitude. This is, indeed, the prevalent situation in Europe. In Germany the system of controls has reached its highest degree of perfection.

It will be instructive at this juncture to point out a few relevant characteristics of the German wartime system of international trade. Prices have been more nearly kept stable in Germany than anywhere else in Europe. In most occupied countries, especially in eastern Europe, price inflation has made great progress. With respect to some western European countries, especially Holland, the German Reichsmark was, however, overvalued at the beginning of the war and many Dutch prices seem to have remained below German prices ever since.

Under a free system exchange rates would have been adjusted. The Dutch guilder would have risen relatively to the Reichsmark and the eastern European currencies would have fallen in varying degrees. But Germany preferred to keep the exchanges stable.⁶ The consequence was that for some time during war the Reichsmark was overvalued with respect to Belgium and Holland, and sharply undervalued with respect to eastern European countries. In order to compensate for these discrepancies and to insulate the German price structure, a com-

⁶ There are numerous exceptions. But the exchanges were certainly not adjusted to variations in the purchasing power parity.

plicated system of export and import subsidies and taxes was introduced. Broadly speaking, exports to eastern countries were taxed and prices of imports from the East kept down by subsidies. In the West, in most instances, imports were taxed and exports subsidized.

The system of taxes and subsidies, intertwined with price control, rationing and allocation, is very complicated and the rates of subsidization and taxation are by no means uniform for each country but differentiated according to types of products and cost of production of individual firms. The system lends itself to monopolistic exploitation of foreign countries. The details are not well known, but its implications for the validity of the purchasing power parity theory are clear: if one is prepared to maintain full control and to utilize subsidies and taxes on exports and imports, one is free to fix the exchange rate independently of purchasing power parity considerations. In that sense, purchasing power parity is of no relevance in a controlled economy.

In what sense, if in any, is it then relevant? The answer would seem to be this: purchasing power parity has a certain relevance and usefulness, even under a régime of direct controls, if we look forward to a period when the direct controls will be abolished,⁷ and under the assumption that the direct controls can be abolished without a substantial change in the price level and that duties and subsidies are no longer used to equalize price levels. If the last condition is not fulfilled, purchasing power parity would still be useful in giving an indication of the magnitude of duties and subsidies which would be required to maintain equilibrium under any desired level of the exchange rate.

IV. *Equilibrium with Controls Abolished*

What are the chances that direct controls can eventually be abolished without a change in the price level? Or somewhat more generally: At what price level will it be possible to abolish direct controls? It will undoubtedly be easier to get rid of direct controls at an early date, if prices are allowed to rise than if prices are kept unchanged. A decision to the latter effect may result in postponing for an indefinite period the abolition of direct controls. Of course, in many or perhaps in most or all countries the rise in the price level and the disappearance of direct controls will not be part of a deliberately conceived and executed

⁷ As Frank M. Tamagna in his interesting article, "The Fixing of Foreign Exchange Rates" (appeared after the present paper had been set in type, in *Journal of Political Economy*, Vol. LIII, No. 1 [Mar., 1945], p. 66) points out, it would be a mistake to rely much for the calculation of purchasing power parities on black market prices, chiefly because they reflect not only relative scarcities but also risk of detection and punishment for illegal dealings. This does not imply, however, that in cases where black markets have become very widespread, black market prices will not give an indication concerning the price level that may be expected when controls are abolished.

according-to-plan policy. The direct controls may simply break down or become more and more ineffective. Especially in enemy-occupied countries after liberation and in enemy countries after surrender, when the administration is purged, when police power is curtailed, and when general regimentation is loosened and discipline disintegrates, is it unlikely that there will be a smooth transition from war to peace production and an orderly relaxation of direct controls accompanied merely by a gradual rise in prices. In short, inflation will be practically unavoidable.

If the current price level cannot be maintained or if it is not desired to maintain it, the purchasing power parity based on that price level loses its relevance. But the general idea that prices and price levels in trading countries are not independent of one another is still important. Its relevance is this: Suppose a policy of relaxing direct controls is formulated which envisages a rise in the price level of so-and-so many per cent; then the exchange rate should be fixed in such a manner as not to disturb that over-all policy; and in finding the appropriate rate, purchasing power parity considerations will be helpful. Usually, however, it will not be possible to plan things in such detail and to foresee the necessary change in the price level with such precision. It may be that all we know is that prices are going to rise, but not by how much. If that is the case, it is quite natural that the question of the exchange rate cannot be answered with precision; if the price level is not known, no definite purchasing power parity can be computed. What can be done is only this: for different hypothetical exchange rates, it can be said what internal price level they presuppose on purchasing power parity grounds. If, for example, the dollar value of the French franc is set high, equilibrium without the direct controls and without having recourse to equalizing export and import subsidies can be reached only at a comparatively low price level and vice versa.

It should be noted, however, that any such calculation is subject to all those reservations and limitations to which the purchasing power parity theory is subjected even in normal times which were mentioned above. It is quite natural that these limitations should be specially severe, because the war has profoundly changed the general balance of payments situation, so that the equilibrium ratio between the price levels in different countries may differ much from what it was before the war.

V. The Risks of Overvaluation and Undervaluation

Since it will be next to impossible to determine the equilibrium rate except by some trial and error, the question should be asked whether it

is better to err in the upward or downward direction? Is it better to risk initially an over- or an undervaluation?

An overvaluation has the following disadvantages and advantages:

(1) It makes the abolition or relaxation of direct controls impossible;

(2) It makes it easier to hold the internal price level;

(3) It may make a later downward adjustment of the external value of the currency necessary, which would tend to undermine the confidence in the stability of the currency and thus strengthen the tendency for capital flight;

(4) It will result in more favorable terms of trade.

An undervaluation (or low initial valuation) has the opposite defects and virtues:

(1) It will facilitate the abolition of direct controls;

(2) It will impart an upward push to the price level;

(3) It will make later downward adjustments of the currency less likely;

(4) It will lead to unfavorable terms of trade.

The first two factors may well be the most important ones. They are closely connected with the price policy which a country expects to pursue. What can be said in general terms without going into the specific position and problems of particular countries is this: The rate should be chosen in such a way as to interfere as little as possible with the price policy which a country is expected to pursue. If a country expects eventually to relax direct controls near the current price level, it should not defeat this policy by adopting a too low level of its currency. If, on the other hand, it is believed that in the process of relaxing direct controls the price level will have to rise, the exchange rate should be low enough to make a higher price level internationally possible.

Since it will hardly be possible in any continental European country to reestablish an economic system tolerably free from direct controls without a substantial rise in prices, a considerable undervaluation of most currencies with respect to the current purchasing power parity seems to be indicated.

The third factor points unequivocally in the direction of undervaluation. It will certainly make adjustments easier from a psychological point of view, if the initial value of the currency can be maintained—or, still better, if it can be raised—than if it has to be successively lowered.

The terms-of-trade factor has been much stressed in recent discussions. It points in the direction of an overvaluation (for there is a strong presumption that a depreciation has a tendency to deteriorate and

an appreciation to improve the terms of trade. It must be doubted, however, whether it will be an important factor for any of the continental European countries. In the first place, the price level is likely to be in a state of flux in most countries. Therefore, if the exchange rate were set low, export prices would soon rise and the terms of trade would not seriously deteriorate. In fact, if the price level becomes very unstable, it is difficult to foresee what will happen and the presumption that a low rate will lead to unfavorable terms of trade may no longer hold true.

Secondly, if the principle of a uniform exchange rate is upheld and these countries renounce the use of all sorts of discriminatory devices (multiple exchange rates, bilateral clearings, a discriminatory use of duties, subsidies or price control measures, etc.), the scope for monopolistic manipulations of the terms of trade is very much reduced. In fact, it must be doubted whether any single country in Europe east of Russia (acting independently) is in a position to exert more than a transitory influence on its terms of trade by means of keeping the exchange rate high, if it refrains from discriminating between countries and commodities.

All this leads to the conclusion that an undervaluation is probably a lesser evil than an overvaluation. This does not mean, however, that the lower the rate is set the better. At which point the disadvantages of an undervaluation begin definitely to outweigh its advantages cannot be determined on general grounds. If it can be decided at all with any degree of certainty and confidence, it can be done only by taking into consideration the special circumstances and the exact place of any particular country in the world economy.

WAGE CONTROL IN WARTIME AND TRANSITION

By HARRY HENIG and S. HERBERT UNTERBERGER*

This paper examines our wartime wage stabilization program and considers the advisability of extending it throughout the period of transition from war to civilian production. The conclusion reached is that discontinuance of government wage controls would set in motion factors leading to a reduction greater than would otherwise be the case in the wage level, national income and employment opportunities. There are then formulated the broad outlines of a wage stabilization program for the transition period, calculated to minimize these possibilities.

I. Wartime Wage Regulations

The program of wage stabilization followed by some time the enactment of regulations controlling other major economic factors, such as production, prices and manpower. Although the National War Labor Board had the authority to settle labor disputes since January 12, 1942,¹ it did not develop a formal set of criteria for the determination of wage rates until October of that year, after the enactment by Congress of the Economic Stabilization act, and the promulgation of Executive Orders of the President issued under this statute. The Economic Stabilization act provided that the President should issue a general order stabilizing wage rates in so far as practicable on the basis of the levels existing on September 15, 1942, except that adjustments necessary to aid in the effective prosecution of the war or to correct gross inequities were authorized. This legislation established clearly that the objective of the wage control program was the prevention of any substantial changes in the general level of wage rates. The Executive Orders² which set forth the guiding principles by which the general level of wage rates was to be held constant provided that no change in wage rates could be made except upon approval of the National War Labor Board; and that the Board could approve wage increases only on four narrowly

* While the authors are employed by the Wage Stabilization Division of the National War Labor Board, this discussion represents their personal views and does not necessarily reflect those of the Board.

¹ Authority vested in the Board by Executive Order 9017, Sec. 3.

² E.O. 9250, Oct. 3, 1942, initially set forth the instructions to the NWLB. It was later supplemented by E.O. 9328, April 8, 1943 (the "Hold-the-Line" Order) and the May 12 Policy Directive of the Director of Economic Stabilization.

circumscribed grounds, and wage decreases on only two grounds.

Neither the debates nor other literature preceding the enactment of the Economic Stabilization act and the issuance of Executive Orders under this statute reveal that these controls were an outcome of any formal theoretical rationale beyond that of stabilizing wage rates as a means of controlling inflation. Nevertheless, it is possible, from an examination of the grounds on which the National War Labor Board can approve wage adjustments and the Board's operations within these grounds, to determine the theory of which wage stabilization was intended to be a practical expression. The broad outlines of the government imposed wage control program and its operation must therefore be noted.

The National War Labor Board may approve a wage increase for the purpose of correcting a "maladjustment" between the cost of living and workers' straight-time earnings. The so-called "Little Steel Formula," which allows general increases to the extent of 15 per cent of the January, 1941, average straight-time hourly earnings, was adopted as the method for calculating the allowable adjustment. The rationale in justification of the "Little Steel Formula" appears to have been as follows. Such an adjustment would have only slight unstabilizing effects on the economy because wage rate increases of at least 15 per cent had already been made throughout most of American industry prior to the inception of the wage control program in October, 1942; and therefore such an adjustment would reestablish equitable wage relationships for those industries or establishments which had lagged behind the upward movement of wage rates. A second rationale of the "Little Steel Formula" may be stated thus: It was felt that, in the interest of social equity, wage stabilization should begin only after wage rates had risen to the heights already attained by prices. From January, 1941, when for all practical purposes the inflationary effects of war production were first felt by the American economy, to March, 1942, the general level of prices rose about 15 per cent.³ In March, 1942, price control was generalized over the entire economy⁴ and the rise in retail prices, at least theoretically, was halted as of that time. When wage controls were first adopted, it was no doubt felt that, because the price of commodities had already risen by 15 per cent, the price of labor should also be permitted a similar rise. Presumably such a policy would achieve a rough measure of social equity.

The second basis for approving a wage increase under the economic

³ The Bureau of Labor Statistics Cost-of-Living Index, which is in fact an index of the average retail prices of living essentials, stood at 100.8 in January, 1941, and 115.1 in April, 1942 (1935-39 = 100).

⁴ See General Maximum Price Regulations, April 28, 1942, 6 FR 3153,330.

stabilization program is that of correcting "gross inequities." Two general kinds of inequities are recognized: (1) *inter-plant*, or inequities among wage rates paid for the same job classifications in different establishments, generally in the same labor market; and (2) *intra-plant*, or inequities among wage rates paid for different job classifications in the same establishment. It is on the first of these grounds that wage adjustments have been approved by the National War Labor Board in the majority of cases before it.

Until April, 1943, wage adjustments on the inter-plant inequity principle were made on a case-by-case basis. Thus, a demonstration that a specific firm was paying wage rates below the average rate of similar firms in that area was in many cases considered to constitute a gross inequity. The remedy was often an adjustment up to the average of rates paid by these firms. This case-by-case method soon proved to be both administratively and economically unsound. The administrative unsoundness of this approach arose primarily from the fact that it was extremely time-consuming; the economic unsoundness, from the fact that it was fundamentally unstabilizing to the wage structure. The policy of permitting adjustments for the lower wage firms up to the average rate resulted in a rise in the average rate—a rise which might then provide the basis for further adjustments for firms paying low wages in terms of the new average of rates. The case-by-case method, generally permitting particular firms to raise their rates to the average of rates, would in time have led to substantial elevations of the general level of wage rates.

The Byrnes Directive of May 12, 1943, provided much more objective criteria for determining whether wage increases could be allowed on the basis of gross inequities. It authorized the Board to establish "by occupational groups and labor market areas, the wage rates embracing all those various rates found to be sound and tested going rates." It further provided that "except in 'rare and unusual' cases in which the critical needs of war production require the setting of a wage at some point above the minimum of the going wage bracket, the minimum of the going rates within the brackets will be the point beyond which the adjustments mentioned above may not be made." The formulators of this concept must have felt that, among the going rates for any given occupational classification in any given labor market, there are discernible certain rates which are "sound and tested." They seem to have felt, further, that the demand and supply forces in the labor market would tend to establish a concentration of sound and tested rates paid for a certain job. The general method used for determining the minimum sound and tested rates, the so-called minimum of the bracket, was to array the rates paid for a given job classification by the various

establishments in a given industry in a given labor market, and then by inspection to determine the first lower substantial cluster of these rates. Where adequate rate information was not available, the minimum of the bracket was developed by more arbitrary statistical methods which were designed to yield approximately the same results. In general, the minimum sound and tested going rate for jobs in a particular industry in a particular labor market area was approximately 10 per cent below the weighted average rate for that industry in that market. Only those firms paying less than the minimum sound and tested going rates were permitted to increase those rates, and then only to the bracket minimum.

This clarification of procedure imposed by the May 12 Directive led to a distinct improvement over the previous method for determining gross inequities. It not only defined the boundaries, industrial and geographical, within which a gross inequity could exist, but also established a terminal point for wage adjustments on this basis. Furthermore, once a bracket of sound and tested going rates was established, it could only be changed if more adequate, not more recent, data became available. Thus, adjustments for individual firms to the bracket minimum, though raising the average rate, could not serve as a basis for raising the bracket minimum. The escalation inherent in the earlier application of the gross inequities doctrine was thereby removed. It was expected that this would result in a relatively constant level of wage rates.

The correction of intra-plant inequities, that is, inequities within the wage structure of a single establishment, involved only a small proportion of the cases before the National War Labor Board. Such inequities occur when different rates are paid for similar work or where the differences between the rates paid for different job classifications do not reflect the differences in job difficulty, training, qualifications, and experience necessary to perform these jobs adequately. Originally, there were no clear-cut limits to such adjustments. After April, 1943, however, no such adjustments could be approved if they resulted in an appreciable increase in production costs. The term "appreciable" has been interpreted very narrowly by the National War Labor Board.

Inter-plant and intra-plant inequities and the "Little Steel Formula" were the chief bases for allowing wage increases. *All but 8 per cent* of the cases involving wage rate adjustments have been decided on these grounds.⁵ The third and fourth remaining bases for wage adjustments have been appreciably less significant, and can be considered below in summary fashion.

⁵ This information, though not appearing in any publication, is available directly from the National War Labor Board.

The third basis on which a wage increase is allowable is that of correcting "substandards of living." Here it appears that the purpose of permitting upward wage adjustments was that of achieving a measure of social reform. National Board policy permits, but does not require, employers to raise wages to 50 cents an hour on the theory that any rate below that amount is substandard. In those cases where the upward adjustments to 50 cents an hour disturb the internal consistency of the wage structure of an establishment, certain further minimum adjustments are permitted in the rates of job classifications closely related to those for which substandard adjustments have been allowed.

Wage increases are granted, finally, when necessary to aid in the "prosecution of the war."⁶ In practice, increases of this kind have been granted cautiously and sparingly. Wage adjustments necessary for the effective prosecution of the war are made only after the agencies of the government charged with the responsibility for procurement, war production and manpower have certified that the activity involved is of critical importance to the war effort and that the industry or establishment involved in this activity cannot meet war requirements because of a manpower shortage, and that this shortage can be overcome only by an upward wage adjustment.

It should be added that the National War Labor Board has authority to approve or direct wage rate reductions as a means of correcting gross inequities and of aiding in the effective prosecution of the war. However, very few cases involving wage decreases have been considered, and no general rules for handling such cases have been developed. This problem is one that is expected to become important in the transition period, and more attention will be given to it later in this paper.

⁶ In addition to allowing wage rate adjustments on these four grounds, the stabilization program provided for control over certain issues other than those involving basic wage rates. Thus, adjustments regarding night-shift bonuses, vacations, overtime, etc., require approval of the National War Labor Board.

However, the wage rate control program continued in effect without change all of the previously established wage administration practices relating to wage increases for *individual* employees rather than jobs. Any plans in existence prior to stabilization regulations, providing formal methods for making merit and length-of-service increases, reclassifications, and various other kinds of adjustments to individual employees could be continued within the wage control program so long as no changes were made in their methods of operation. Since the National War Labor Board exercised only general and loose supervision over the operation of existing plans of this kind, it is probably true that the opportunities afforded thereby for granting wage increases to individual employees were quite fully utilized.

It should also be noted that wage control was not extended to very small business establishments. Firms with less than nine employees were not subject to the rules and regulations of the National War Labor Board, except in a few special instances where it could be demonstrated that their exemption resulted in unstabilizing the local labor market areas.

From the above description of wartime wage regulations, it is clear that the basic purpose of the wage stabilization program was that of controlling the level of wage rates. There was no attempt to control earnings, among other reasons, because of the wartime necessity for increasing the length of the work-week.⁷ Furthermore, no change was made in the custom of paying overtime for work in excess of a fixed number of hours per week, or the paying of night-shift bonuses, or other premium pay. As a matter of fact, the Board permitted such payments in many establishments where such practices had not previously existed. Since the control was directed entirely to wages as a cost, it appears that the formulators of the policy believed that the most important inflationary force which the wage stabilization program must check is that of rising wage rates, the presumed forerunner of higher labor cost, higher total production cost, and ultimately higher prices. This interpretation of the rationale of the wage stabilization program is substantiated by the fact that under the April 8, 1943 "hold-the-line" order, certain wage adjustments were permitted only if they did not result in an increase in price or an appreciable increase in production cost. The reasoning underlying the control of wage rates presumably was that upward wage rate adjustments beyond those allowable by the stabilization program would necessitate upward price adjustments, at least in so far as labor costs were significant. Quite correctly, it appears to us, the assumption was made that an increase in workers' *earnings* need not be a factor increasing *labor costs*, except primarily in the case of premium rates for overtime; and that the immediate increase in labor cost due to premium rates would to a considerable extent be offset by the savings inherent in fuller plant utilization. While, of course, a substantial expansion in the volume of workers' earnings would *per se* tend to raise the price level, this tendency would presumably not entirely fulfill itself in view of direct price control by the Office of Price Administration, as well as heavy taxation restricting private expenditures for consumers' goods.

Furthermore, the wartime program of wage control contemplates stabilization, not freezing, of wage rates. Stabilization may, by implication, be defined as maintenance of the wage rate level, except in so far as that level must rise because of adjustments allowable under any of the four approvable bases discussed above. The net effect of the Na-

⁷No matter how vigorous the enforcement of the wage stabilization program, earnings of labor were bound to increase substantially, since these earnings are affected by factors over which the Board has no control. Some of these factors are worth noting briefly: increase in number of hours worked and in hours worked at premium rates; upgrading of workers to more skilled and therefore higher-paying jobs; shifts of workers to better-paying occupations, industries and localities; and the increase in piece-work earnings made possible by technological improvements or long runs of identical work.

tional War Labor Board's operations has been, of course, that of raising the wage level since, except for an insignificant number of cases, the Board has approved only upward wage adjustments.

Some indication of the extent to which the wage rate level has risen is available from the Bureau of Labor Statistics, from which the following data are excerpted:⁸

Wage Rates in Manufacturing, January, 1941—April, 1944

	No. of Months	Per Cent of Increase in Urban Wage Rates
<i>Total Period:</i>		
Jan., 1941—Apr., 1944	39	27.5 ^a
<i>Pre-stabilization Period:</i>		
Jan., 1941—Oct., 1942	21	17.0 ^a
<i>Stabilization Period:</i>		
Oct., 1942—Apr., 1944	18	9.0 ^a
Oct., 1942—Apr., 1943	6	3.0 ^a
Apr., 1943—Oct., 1943	6	3.8
Oct., 1943—Apr., 1944	6	1.9

^a Partly estimated.

Percentage wage rate increases shown in the table reflect (1) specific adjustments approved by the National War Labor Board on the four allowable grounds discussed above, and (2) adjustments permissible, within prescribed limits, without formal Board approval—such as merit or length-of-service increases.

It is clear that the percentage increase in wage rates has declined significantly since the inception of the wage stabilization program. This is true since, as that program continued in operation, the range within which further upward adjustments were still allowable was constantly being narrowed. Thus, the smallest increase occurs in the most recent quarter for which data are available.

It appears also that the rise of wage rates from the inception of the wage stabilization program to April, 1944, is a modest one, compared to the potential of wage increases. That potential is apparently significant in view of the number of applications to the National War Labor Board for which the requested increases were either denied in full or granted only in part. As of December 1944, fully 55 per cent of all applications received by the Board were either denied or modified.⁹ Furthermore, denials and modifications were so frequent that many

⁸ "Wartime Wage Movements and Urban Wage Rates," *Mo. Lab. Rev.*, Oct., 1944, pp. 684-704.

⁹ This information, though not appearing in any government publication, is available directly from the National War Labor Board.

business men who would otherwise have applied for upward wage adjustments were deterred from doing so; and other enterprisers found it unnecessary to apply, since their competitors had failed to secure increases.

The existing wage stabilization program, whatever its imperfections, has demonstrated that effective government control of wage rates can be maintained despite tremendous pressure for increases. Whether some such program is desirable for the transition period, however, is a question that must, it seems to us, be answered largely with reference to an assumption regarding the economic character of that period. The assumption made in this paper is that unemployment during transition will be substantial.¹⁰ What, then, would be the effect of a wage control program on employment opportunities? That wage control will significantly affect the volume of employment is obvious since, as will be indicated below, the fact of control means (1) a wage level different from what otherwise would be the case and, therefore, (2) a national income different from what would otherwise be the case. Since it is the size of the national income which economists generally associate with a given volume of employment, the strategic importance of wage control—a factor affecting the volume of national income—becomes obvious.

II. Relation of the Wage Stabilization Program to the Size of the National Income

A fall in the wage level during the transition period would lead to a contraction in national income, unless the wage level decline itself induces an expansion in employment. While a reduction in wage levels, employment remaining constant, could in the first instance lead simply to a redistribution of income in favor of enterprisers or other groups, it appears inevitable that the total national income must shortly fall.

¹⁰ This assumption is based on the following reasoning: The initial effect of cutbacks and re-tooling for civilian production must be that of causing unemployment, estimates of which have ranged from three to seven million persons. This estimate would not be too distressing in so far as there were assurance that reconversion would quickly and significantly reduce the army of the unemployed. But the list of the more obvious and inevitable delays before peacetime production can get under way is impressive: machines must be re-tooled, industries re-located, workers re-trained and re-migrated; and an accumulation of technological innovations, only theoretically sound, must be put to the test of experience. Transcending any of these impediments to reemployment, perhaps all of them combined, is what appears to us to be the clear probability of a decline in public spending after the defeat of Germany.

Once the assumption of unemployment is made, it appears, as will be indicated in Section II, that the course of wage rates will be downward. For a restricted number of occupations, industries and areas, however, rates may rise—a possibility that must be contemplated by any effective stabilization program.

The sudden enrichment of nonlabor groups at the expense of labor is bound to decrease the volume of expenditures on consumers' goods and, therefore, employment in consumers' goods industries; and there is little likelihood that this diminution in employment will be offset entirely by an expansion of investment and therefore employment in the capital goods industries. For even if the standard neo-classical theories of interest are sound (and it is interest theory that most neo-classical economists are apt to regard as the weakest link in their analysis), it is certainly unrealistic to believe that an increased volume of saving would surely and quickly lead to a fall in the rate of interest, a consequent expansion of investment opportunities, and an adequate increase in the production of capital goods.

On the assumption made earlier in this paper that substantial unemployment will prevail during transition, we may reasonably anticipate a declining wage level for that period, should the wage stabilization program be discontinued. Though somewhat offset by union pressure against wage cuts, unemployment has generally operated as a potent wage-reducing factor. This fall in the wage level, as already indicated, would lead to a contraction in national income unless the wage reduction itself induced an expansion in employment.

It is important to note that discontinuance of the wage stabilization program would cause a fall in the wage level *greater than otherwise would be the case*. That is, the wage level would presumably decline even though wage control continued throughout the transition period. The reasons for this decline may be noted briefly:

1. A substantial number of workers will shift from jobs in higher-paid war industries to lower-paid jobs in civilian industries during the transition period.
2. A substantial number of workers will shift from jobs in higher-paid urban centers to jobs in lower-paid suburban or rural areas. It may be expected that with the decline of war industries, mostly situated in large cities, a large number of workers will re-migrate to less remunerative civilian jobs.
3. Job down-grading may become an extensive practice.
4. Even under the regulations of the present wage stabilization program, it is possible to make a significant number of merit and length-of-service increases without the necessity of securing National War Labor Board approval. These regulations provide that companies' existing merit and length-of-service plans can be continued without modification. Often these plans are flexible as to the conditions under which increases are allowable, so that in practice a great deal of leeway has been possible. It may be expected that with the loosening of the labor market during the transition period, merit and

length-of-service bases for increasing wage rates will be redefined tightly, so that workers hired at any given rate will be denied upward adjustments on these grounds altogether, or at least, receive them at a slower rate. This reversal or modification of wartime practice would amount to a reduction in wage rates, *i.e.*, workers would be hired at or tend to remain at minima rates, whereas war workers have climbed considerably above those minima.

These are the reasons suggesting that the wage level will actually fall in the transition period though, of course, rates for particularly scarce skills, *e.g.*, patternmakers, may actually rise. A wage stabilization program cannot—indeed, should not—altogether arrest this downward trend. For, in so far as a declining wage level is due to the factors listed above, it may very well register fundamentally sound economic adjustments in the allocation of manpower. Legitimate downgrading, for example, results in a lower wage rate for particular workers due to their reclassification to jobs requiring a lower level of skill; and in so far as available jobs require less skill than those previously held by workers, a reduction in individual rates is economically sound.

The foregoing observations can be summarized as follows: (1) discontinuance of the wage stabilization program in the transition period would permit the wage level to fall *more than would otherwise be the case*; (2) this *extra* decline would cause a fall in the national income greater than would otherwise be the case—unless the lowered wage level itself induced an expansion of employment. Proceeding from point (2), our immediate problem is to determine, in the light of probable transition conditions, whether a fall in the wage level would in fact lead to an expansion of employment.

III. *Enterprisers' Behavior in the Transition Period*

The reduction in wage levels, whatever may be its theoretical implications from the standpoint of price-cost relationships, is a disconcerting and inhibiting phenomenon to enterprisers. For the calculations of business men can hardly be expected to exclude the reflection that an initial general wage decrease may well be the harbinger of a series of both wage level and price level decreases. This prospect, something quite different from the expectation of wage adjustments in occasional industries and occupations, is certainly not one likely to stimulate an expansion in the purchase of labor.

While business men generally are apt to feel the inhibiting effects of a wage level reduction, the repercussions of such a decline will weigh unevenly on different types of activities. In this regard it is significant to distinguish between enterprisers who have continued to produce civilian goods and services for a civilian market throughout the war,

e.g., women's and children's clothing, retailing, the amusement industry, and those enterprisers who have converted to the manufacture of war products.

It is the civilian producers who will be least disturbed initially by the dynamics of the transition period. Indeed, these are the producers who see in the transition period some direct benefits, such as the lifting of priority restrictions, greater accessibility to raw materials, and greater availability of labor. The long-awaited green light, signalized by the advent of these benefits may, however, abruptly change to red because of any one of several obstructions possible in an economy of transition. Would a reduction in wage rates, attendant on a termination of the stabilization program, appear to civilian producers as one of these obstructions? These producers are aware of and concerned about the strenuous competition that will manifest itself after the defeat of Germany enables war producers to reconvert. The certainty of this new competition in a period of uncertain markets would tend to inhibit expansion; but even more inhibiting to these civilian producers is the possibility that the reconverted enterprisers may be able to undersell them on the basis of lower labor costs. Since the labor market will loosen up in the transition period, the reconverted industries might easily pick up workers at bargain rates, that is, at rates lower than those now paid by regularly established civilian producers. Furthermore, war producers, reconverting to civilian industries, could thereby release themselves from the wage provisions of long-term labor contracts, many of which have re-opening clauses for just such a contingency as a fundamental alteration in the character of a business. The possibility of wage cutting by reconverted war producers probably would deter civilian enterprisers from expanding production; or, to put the matter even more cautiously, would not actually induce these civilian enterprisers to expand employment.

Civilian producers, faced by the prospect or actuality of wage rate reductions by their newly reconverted competitors, might of course be able to reduce their own wage rates. But these civilian enterprisers, the structure of whose enterprises continued fundamentally unaltered in the transition period, are bound by long-term labor contracts which they cannot abrogate easily. Civilian producers, therefore, probably could not reduce wage rates for their employees as quickly as, or to the level obtainable by, war producers; and even apart from the existence of labor contracts could not do so without costly labor disturbances. For these reasons, civilian business men are not likely to interpret the reduction in wage levels, initiated by a discontinuance of the stabilization program, as a situation inviting or compelling an expansion of their employment. It follows, in accordance with our reasoning

above, that a reduction in the wage level would cause a contraction in the national income.

We need now consider the impact on employment of the behavior of war producers, anticipating reconversion. These business men are essentially in the position of new investors seeking profitable enterprises; except that they are faced with greater than usual uncertainty regarding the business future, and except that the number of these new investors exceeds that in any "normal" business situation where, at any given time, the new entrants into an activity constitute a small percentage of those already established. War producers must determine the product or services to which to reconvert in terms, among other considerations, of the probable range and intensity of competition likely to be encountered. Each of them, furthermore, is aware that whatever may be the civilian activity into which he may enter, other war producers will make the same choice; so that, in any field of activity, the potential expansion is great, though indeterminate, and the survival power of any single reconverted producer is at best a matter for speculation.

Unlike already established civilian business men, war producers must then choose a field and, having chosen one, must—again unlike civilian producers—determine from scratch the probable magnitude of their operations. In the interest of full employment, these decisions should be made quickly. For the initiative in the battle against depression and unemployment may be lost if business men feel that it would be better to "wait and see"; to defer action for a while until the trend of the transition period becomes apparent, particularly the trend of wage rates. Whether war producers reconvert quickly or slowly, the tempo is bound to be slowed down to the extent that uncertainty as to the course of wages is added to the other uncertainties plaguing business enterprise. It is beside the point that some of the more adventurous war producers will rush into the civilian market, regardless of circumstances, hoping thereby to obtain the competitive advantage of an early start. For it would be exceedingly optimistic to assume that the great bulk of producers will reconvert at a tempo unaffected by the indeterminateness of the course of wage rates.

A reconsideration of certain effects of the existing wage stabilization program suggests clearly that war producers would naturally interpret the continuance of that program as a reassuring circumstance. The point was made earlier that most businesses which have converted to the production of war materials have increased their wage rates *considerably over* their own pre-war level, and over the level of their former competitors who have remained in the civilian field. But

the disparity in rates among competing producers in any given industry, for any given occupation in a given labor market, has narrowed, not widened, since the stabilization program was inaugurated. This is the logical result of a program which, from its inception, has held high wage enterprises to their established rates but permitted low wage companies to raise their rates to the level of the sound and tested rates—the so-called minima of the brackets, explained above.

In the light of this outcome of the wage stabilization program, consider now the type of problem facing, say, a manufacturer of cartridge shells, formerly a manufacturer of roller skates. As a war producer, he experienced the usual pattern of wage rate increases. When his contract for cartridges is cancelled, he must decide on a course of action. Whether to return to the manufacture of roller skates (or some other civilian product) and what should be the magnitude of his reconverted operations depend, among other things, on the cartridge manufacturer's estimate of his probable labor cost, especially in relation to that of his competitors. He need not be too distressed about civilian competitors who have never converted for, as was indicated above, the war producer could reduce his high war-time rates to approximately the civilian level, perhaps even below that level. Nevertheless, war producers cannot know the level of rates that will be paid by these civilian producers—a circumstance which, as indicated above, must retard the tempo of reconversion. Furthermore, the cartridge manufacturer does not know the wage rates that will be paid by the present war producers when and if they enter the field of roller-skate manufacture. In the absence of a wage stabilization program, he might conclude that these former war producers could undercut him in the competitive struggle to lower labor costs, and that the whole wage rate structure might precipitously collapse. This is a situation placing a premium on caution on the part of any of these producers.

On the other hand, if the wage stabilization program is continued, it is reasonable to believe that war producers might reason as follows. Wage rates are a known quantity. Civilian rates are lower than war rates; but since virtually all civilian producers are paying rates equal to at least the minima of the brackets, the differences between the former and the latter are not so great as to preclude competition. In any case, continuance of the wage stabilization program throughout the transition period would also provide assurance to war producers that competition among themselves after reconversion will be less erratic than otherwise, because the course of wages will be a determinate factor.

Such are, it seems to us, the "practical" calculations of business men.

In so far as they exist, they are strategic in affecting the course of employment. It is beside the point to argue that these calculations have no theoretical validity; the significant question is whether these calculations are in fact prevalent. If we could assume that business men calculate differently, *i.e.*, that they believe that a drop in the wage level promises a period of business activity, then, of course, the effect of this decline might be initially an expansion of employment. But this does not appear to us to be a realistic assumption of the workings of business psychology. It is not here suggested that even absolute business certainty as to the course of wage rates will of itself lead to speedy re-conversion; nor even that a stable wage level will necessarily lead to an expansion of employment. The point stressed is that, in terms of business men's calculations, discontinuance of the wage stabilization program would add to the uncertainty of the business future.

Discontinuance of the wage stabilization program, we have already indicated, would lead to a decline in the wage level. That decline, interpreted in the light of business men's calculations, is not likely to induce an expansion of employment.¹¹ The cut in the wage level, unaccompanied by an expansion in employment, will lead to a fall in the national income—a circumstance associated with a contraction of employment opportunities. If this conclusion is correct, the case for government maintenance of the wage level appears strong.

IV. *A Wage Stabilization Program for the Transition Period*

Since available wage data indicate that the present wage program has succeeded in effectively stabilizing wage rates (see Section I), the

¹¹ The conclusion that a reduction in the wage level would not necessarily induce an expansion of employment is derived here simply by estimating the probable behavior of enterprisers faced with declining wage rates. It is worth checking this conclusion against the findings of theoretical economics. Neo-classical theory holds that a reduction in the wage level constitutes a factor operating toward an expansion of employment. Since, however, this conclusion is arrived at without reference to the price and income alterations necessarily induced by a general wage level reduction, it seems to us to be devoid of practical relevance to the problem of maximizing employment. The Keynesian type of analysis, however, deals with the effects of general wage reductions on prices and incomes; and therefore provides a theoretical framework of practical significance. Keynes's general position regarding the relation of wages to employment is summarized as follows: "... the reduction in money-wages will have no lasting tendency to increase employment except by virtue of its repercussions either on the propensity to consume for the community as a whole, or on the schedule of marginal efficiencies of capital, or on the rate of interest. There is no method of analyzing the effects of a reduction in money-wages, except by following up its possible effects on these three factors." (*The General Theory of Employment, Interest, and Money*, p. 262.)

However, both neo-classical and Keynesian theory appear to be in fundamental accord regarding the effect of a wage decrease in a specific industry or occupation; such a decrease may well lead to a lasting expansion of employment in that specific industry or occupation. Restricted or isolated action of this kind would presumably not set into motion a whole current of fundamental alterations in the economy.

basic principles and regulations of that program may well be continued in the transition period, except where conditions peculiar to that period dictate modifications. With this observation as a point of reference, the following program for the transition period is proposed.

1. The "Little Steel Formula" allows for upward general wage increases to compensate for the rise in the cost of living. This adjustment—15 per cent of the average straight-time hourly earnings received in January, 1941—less than compensates for the percentage rise in the cost of living since that date.¹² It follows that the cost of living could decline considerably before necessitating a downward adjustment in rates on the cost-of-living principle. But in any case, the wage stabilization program of the transition period should not permit a reduction in the general level of wage rates. This conclusion is based on the reasoning presented earlier in this paper, *i.e.*, that a reduction in the wage level would tend to diminish the national income and intensify unemployment. On the other hand, the wartime limitations on general wage increases should not be relaxed so long as a general inflationary threat continues. On the assumption made herein, however—that unemployment in the transition period will be substantial—the probability of a *general* rise in prices is slight.¹³

2. Wage rates are now increasable for the purpose of correcting inter-plant inequities, *i.e.*, inequities among wage rates paid for the same classification in different establishments. These corrections have been generally limited to establishments in the same local labor market. Stabilization was achieved when the gross inequity was removed so that there was no substantial advantage accruing to workers of one establishment, not enjoyed by neighboring workers in the same local labor market. Limitation to such a narrow universe for the correction of inequities was entirely appropriate so long as there was a virtually assured market for goods at profitable prices. With the transition to peacetime production, and on the assumption of considerable unemployment during that period, the universe within which gross inequities could exist will be significantly broadened. This occurs because each competing producer will no longer have a virtually guaranteed market

¹² The President's Committee on the Cost of Living in its report, November 10, 1944, showed a 30 per cent increase in the cost of living from January, 1941, through September, 1944. The Thomas Meany report of January, 1944, asserted that by December, 1943, the cost of living had risen 43.5 per cent above the level of January, 1941. The Bureau of Labor Statistics cost-of-living index which stood at 100.8 in January, 1941, stood at 126.4 in October, 1944.

¹³ In recommending that the wartime limitation in general wage increases be extended throughout the transition period, we are not passing on the question of whether the present wartime limitation, *i.e.*, the "Little Steel Formula," should now be modified.

for his goods and will therefore be competitively affected by the wage rates paid by all other producers selling for the same market. Thus the inter-plant inequity arising from different wage rates and labor costs could extend in the transition period far beyond the local labor market for those establishments whose products are sold on a regional, national, or even international market. For such industries it will probably become entirely appropriate to measure gross inequities on a much broader geographical basis, in some cases an industry-wide universe. In any case, the principle of permitting wage adjustments to correct gross inter-plant inequities, developed in the wartime stabilization program and demonstrated as an effective means of preventing inflationary wage increases, should also be extended into the transition period.

In so far, however, as unemployment in the transition period is substantial and the pressure for *general* wage increases is slight, the gross inequity principle would operate primarily to prevent undue wage increases for a restricted number of workers in occupations where manpower shortages exist. But just as this principle would continue the ceilings over upward wage adjustments as long as they are necessary, so it would establish a floor limiting downward wage adjustments in occupations abundantly supplied with workers. Thus in those few cases where it can be clearly demonstrated that a reduction in wage rates is the only effective and feasible method for bringing about a net expansion of employment, that reduction may be authorized. Such a reduction, however, should be consistent with the concept of gross inequities, and contained within the rates established under that concept. It may be possible to limit wage rate reductions to a restricted number of cases, possibly as restricted a number as that for which upward "rare and unusual" adjustments for the effective prosecution of the war are now granted.¹⁴

3. An important administrative problem of the wage stabilization program of the transition period will be that of applying its principles to new and reconverted plants, which at the very beginning of their operations must establish wage schedules. It is obviously to the advantage of companies to establish these schedules below the level being paid by competing establishments. To prevent this deflationary possibility, it would, of course, be necessary to approve these new job struc-

¹⁴ The limitation of wage increases and decreases to adjustments permissible within the gross inequity doctrine is consistent with this concept of wage stabilization, *i.e.*, the maintenance of a given wage level within a narrow range and adjustments within that level on certain circumscribed grounds. Whatever the level of wage rates may be, whether that level is controlled governmentally or competitively, occasional fluctuations within it would be economically necessary.

tures tentatively before making them permanently effective. It is the necessity for quick rulings that creates a real administrative problem; delays would prevent the new or converted plant from beginning its operations. A job-by-job comparison between the jobs in the new structure and the so-called sound and tested rates for similar jobs in the industry and labor market is time-consuming. It is suggested, therefore, that new job structures be inspected simply from the standpoint of determining whether the *average* of wage rates provided therein is no lower than the average of wage rates elsewhere in the appropriate universe for determination of inter-plant inequities. If even this procedure should be found to be too time-consuming to permit rapid reconversion in the transition period, some consideration might be given to the possibility of permitting new or reconverted plants to begin their operation without approval of their job structures, requiring them, however, to apply for such approval immediately. Subsequently, approval or modification of the instantly established rates would be ruled on by the National War Labor Board. Since most employers would, in the first instance, probably apply for as low a wage schedule as possible, it is likely that the Board's final action would generally require upward adjustments and would not, therefore, be a source of labor disturbances.

4. As a means of reducing the administrative burden of the transition program, certain intra-plant inequity adjustments should be permitted without Board approval. Such adjustments are now permissible (subject to Board approval) only if they can be made without appreciable increase in production costs; and under this limitation, these adjustments cannot result in any substantial increase in the average of all rates within an establishment. To this restriction might be added one other: namely, that intra-plant adjustments may affect at most, say, 25 per cent of the workers in an establishment. Subject to these two controls, intra-plant adjustments, though made without Board approval, would not be unstabilizing.

5. The wartime wage stabilization program permitted wage increases for the purpose of correcting substandards of living. The purpose of permitting such adjustments was that of achieving a measure of social reform. Since the transition period should certainly not be one in which social reform is neglected, it appears entirely appropriate that increases for the correction of such substandards of living should continue to be permitted and that no wage reductions below the minimum standard rate should be allowed.

6. Finally, wage increases were granted when necessary to aid in

the "prosecution of the war." As long as the war continues, this basis for upward wage adjustments would of course be appropriate.

The foregoing recommendations constitute only the outline of a wage stabilization program, not a detailed and charted course of action. Indeed, it is this broad outline that must first be appraised before consideration can be given to the appropriateness of specific regulations within it. The present wage stabilization program, it is interesting to note, evolved from a relatively simple set of underlying principles into an elaborate body of doctrine and practice. So, too, must the transition program.

EXPERIENCE RATING IN UNEMPLOYMENT COMPENSATION

By CHARLES A. MYERS*

I

The importance of adequate provision for unemployed workers during the reconversion period has properly focused attention on some of the shortcomings of our present system of unemployment compensation.¹ But social security programs also need reëxamination in the light of their probable impact on the level of employment after the transition from war to peace. This long-run problem should not be disregarded simply because immediate demands are more pressing.

Unemployment compensation, and social security programs generally, are designed primarily to provide some protection for covered workers against certain unavoidable hazards. The possibility of using social security taxes and funds as a major weapon in governmental efforts to assure high-level employment has received only secondary attention in this country. Although it has been claimed that payment of unemployment benefits in depression periods would have a bolstering effect on consumer demand, and although experience-rating provisions in some 40 state laws have been designed to encourage individual firms to stabilize their employment, neither of these is tied in directly with a positive government fiscal policy as an instrument of economic stabilization.

II

A concrete and significant proposal in this direction is made in the recent British White Paper on *Employment Policy*.² This White Paper is notable in many respects, but principally because it commits the present British government to a far-reaching program for meeting

* The author is assistant professor of industrial relations at the Massachusetts Institute of Technology.

¹ Richard A. Lester, *Providing for Unemployed Workers during the Postwar Transition Period*, chap. iv, "Improvements in Unemployment Compensation" (New York, McGraw-Hill, 1945). Gladys R. Friedman and William H. Wandel, "Unemployment Compensation Goals in the Reconversion Period," *Social Security Bulletin*, Vol. 7 (Sept., 1944), pp. 6-10; and "Unemployment Compensation in the Reconversion Period: Recommendations by the Social Security Board," *Social Security Bulletin*, Vol. 7 (Oct., 1944), pp. 3-8.

² Cmd. 6527 (reissued in the United States by Macmillan Company, New York, 1944).

"those long-term problems connected with the maintenance of an adequate and steady volume of employment which eluded solution before the war."³

The Keynesian influence on British thinking in this instance is clear. One of the "essential conditions" of the program is that "total expenditure on goods and services must be prevented from falling to a level where general unemployment appears." In addition to "public investment" to maintain "capital expenditure," the White Paper recommends, "we must create another line of defence against this progressive degeneration of the state of trade by putting ourselves in a position to influence the community's expenditure on consumption."

The core of the proposal is stated as follows:⁴

For this purpose, the Government, after examining a number of methods, favour the adoption, when settled conditions return, of a scheme for varying, in sympathy with the state of employment, the weekly contribution to be paid by employers and employed under the proposed new system of social insurance. The standard rate of contribution would be assessed on the basis of a forecast of the average level of unemployment, in such a way as to keep the social insurance fund in balance over a number of years. But the rate of contribution actually levied would exceed the standard rate at times when unemployment fell below the estimated average level and would be less than the standard rate at times when unemployment exceeded this average. . . .

The effect of this scheme would be that, above a certain level of unemployment, a rise of two points in the unemployment percentage would decrease by an average of £500,000 a week the total of the social insurance contribution paid by workers in employment—apart from the corresponding reduction in the costs of employers. This would substantially augment the purchasing power in the hands of employed workers; and the additional money thus left in the hands of many millions of people would help to maintain demand for consumers' goods, thereby offsetting, at least in part, the decline in the expenditure of those who had lost their employment. This maintenance of purchasing power would reduce substantially the variations in total expenditure and employment.

Here, it must be admitted, is something new in social security policy, given influential support by the government of a nation which has pioneered in social security.⁵ The sharp contrast with our own social

³ *Ibid.*, p. 15.

⁴ *Ibid.*, pp. 22-23. Fuller details of the plan are included in an appendix to the report.

⁵ In his *Fiscal Policy and Business Cycles* (New York, Norton, 1941), Professor Alvin H. Hansen made a somewhat similar proposal, but it was not related directly to social insurance or unemployment compensation. He suggested that a payroll tax might be increased during the late upswing and boom, and dropped entirely after the turning point had been reached. Funds previously collected could then, he said, be "returned to aid employers to maintain current wage rates." And, "in so far as payroll taxes had been deducted from wages, they should be returned to the wage earners (employed as well as

security program is striking. During a period when employment and payrolls were expanding, Congress voted in 1943 and again in 1944 to postpone the scheduled increases in employer and employee contributions (payroll and earnings taxes) for federal old-age insurance. The scheduled increase to 2 per cent on January 1, 1945, would have doubled the annual revenue of \$1,300,000,000 at 1 per cent. Contribution rates may later have to be raised at a time less favorable from the standpoint of consumer demand and employer costs. But it is with experience rating under state unemployment compensation laws that the contrast is sharpest. The remainder of this paper will be devoted to a reëxamination of our present experience-rating systems in the light of the British proposal and other considerations.

III

The primary and announced purpose of experience rating in unemployment compensation is to provide a financial incentive, in the form of a reduced contribution rate, for the individual employer to make a real effort to stabilize his employment. Britain experimented on a limited basis with this idea before 1920, but abandoned it.⁶ Hence it is usually regarded as a peculiarly American invention. Three years before the Social Security act was passed in 1935 in this country, Wisconsin adopted an unemployment compensation law with definite provisions for "merit rating" (as it was then called).

The pressure for some form of merit or experience rating grew as other states adopted unemployment compensation laws after 1935. By the end of 1943, experience rating was effective in 40 states, and during 1944-45 it will go into operation in 5 more states.⁷ In most of these states, the revenues used for payment of unemployment benefits come from a payroll tax ("contribution") levied on employers exclusively. Only three states require contributions from employees (1 per cent) based on their earnings. Reductions below the standard rate of 2.7 per

unemployed) to help maintain labor incomes in the depression" (pp. 293-94).

A brief suggestion along similar lines, in connection with experience rating under unemployment compensation, was made in the Unanimous Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, September, 1940), pp. 71-72.

⁶ Mary B. Gilson, *Unemployment Insurance in Great Britain* (New York, 1931), p. 43. See also chap. vi.

⁷ Many of the following data on experience rating were taken from "Experience Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944), pp. 11-19. The only states or territories without provision for experience rating are Alaska, Mississippi, Montana, Rhode Island, Utah, and Washington. After this manuscript was prepared, New York adopted a type of "experience rating" different from existing provisions. It does not provide for direct variations in contribution rates, but allows rebates in the form of tax credits under certain conditions. It is too early to evaluate the probable effects of this plan.

cent may go as low as zero in some states, but in only 16 of the 40 states are higher-than-standard rates assessed against "unstable" firms.

Between January 1, 1941, and December 31, 1943, employment and payrolls increased substantially. Yet during these three years, as experience-rating provisions became effective in 40 states, the average employer contribution rate in these states dropped to 1.8 per cent, compared to the standard rate of 2.7 per cent. (See Table I.) The revenue collected, compared to what it would have been at the standard rate,

TABLE I.—REDUCTIONS IN CONTRIBUTION RATES AND REVENUES UNDER EXPERIENCE RATING

Year	Average Employer Contribution Rate (All States)	States with Experience Rating				Reduction in Revenue as % of Contributions at Standard Rate (All States)
		Number	Average Employer Contribution Rate	Reduction in Revenue from Standard Rate ^a (millions)	Reduction as % of Contributions at Standard Rate	
1941	2.58%	17	2.17%	\$54	20%	5%
1942	2.18	34	1.81	269	34	20
1943	2.00 ^b	40	1.80	416	36	26

Source: Condensed from Table 1, "Experience-Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944), p. 11.

^a Excluding special war risk contributions provided in 9 states, amounting on 1943 payrolls to 30 million dollars.

^b An unofficial tabulation reported an average employer contribution rate for all states in 1944 of 1.8 per cent. (*Business Week*, Apr. 28, 1945, p. 34.)

also declined each year, until in 1943 it was more than a third lower than the probable revenue at the standard rate.⁸ For all states, this represented a reduction in revenues of one-fourth from the potential revenue of 1.6 billion dollars.

The opposite result may be expected in a future period of falling employment and declining payrolls. Under present experience-rating provisions, the average employer contribution rate will have to be increased, and the revenue collected per payroll dollar will also increase.

⁸ This possibility was foreseen in *Experience Rating under Unemployment Compensation Laws*, in the Unanimous Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, Sept., 1940): "... Even those States which already have accumulated rather substantial reserves might do well to 'make haste slowly' in using their present reserves as a basis for reducing contribution rates to a point where current collections would merely match current out-go" (p. 56).

To the extent that this loss of revenue through lower contribution rates is reflected in higher profits or lower prices, however, some of it will be recovered by the Treasury (though not for the Unemployment Compensation Fund), through excess profits taxes and lower costs of war goods.

Except for the fact that the variations apply to employer contributions alone in this country, these results are just the opposite of those recommended by the British White Paper in the interest of maintaining high-level employment. Total revenues collected will be greater in boom than in depression, because total payrolls are higher, but the *rate* of contribution will vary in the opposite direction.

IV

Why does experience rating bring these results? The answer is to be found in an examination of the mechanics of contribution rate reductions in our various state laws. The earliest form of experience rating, adopted in the Wisconsin law in 1932, was the "reserve-ratio" method. Under this plan an employer qualified for a lower-than-standard contribution rate if the ratio between his credited "reserve" (total contributions less benefits charged against his account) and his average annual payroll in preceding years was at specified percentage levels. Thus, if an employer succeeded in reducing benefit payments, either by employment stabilization or other devices, his reserve ratio might rise, provided his annual payroll remained about the same or at least increased less rapidly. He would, therefore, be qualified for a lower contribution rate the following year. In Wisconsin he might even qualify for a zero rate.⁹

The Wisconsin law was the pattern for many other states adopting experience rating. By the end of 1943, 24 of the other 39 states in this group had a reserve-ratio type of law, although most of these differed from the Wisconsin law in that employer contributions were largely pooled, rather than kept in separate "employer reserves." Seven states with experience rating had adopted a method known as the "Cliffe plan" (developed originally by an official of the General Electric Company); and 5 others followed a "benefit-ratio" plan. Two states used a combined reserve-ratio—benefit-ratio plan, and one state (Connecticut) used a "compensable separations" method, under which an employer's experience is measured by an index involving the number of separations resulting in benefits multiplied by the benefit rates.¹⁰

The "Cliffe plan" differs from the reserve-ratio method in several important respects. The intention of the former is to replenish the fund for the average annual amount of benefits paid during the preceding three years, and in effect to put operations on a "pay-as-you-go"

⁹ For a fuller discussion of the Wisconsin act, see a study by the author, *Employment Stabilization and the Wisconsin Act* ([Employment Security Memorandum No. 10] Social Security Board, Washington, Sept., 1940). A condensed version appeared in the *Am. Econ. Rev.*, Vol. XXIX, No. 4 (Dec., 1939), pp. 708-23.

¹⁰ "Experience-Rating Operations in 1943," *op. cit.*, Table 2, pp. 12-13.

basis rather than to accumulate a growing reserve. The employer's contribution rate is determined by his "experience factor" adjusted by the state "experience factor." His experience factor may be defined as follows: the base-period wages ("benefit wages") earned from him by employees who are laid off and subsequently draw benefits, in a three-year period, divided by his total annual payrolls for three years. The state experience factor is simply the total benefits paid, divided by the total of all "benefit wages" in the state over three years. Benefit wages are charged to previous employers after the first week of benefits, and are the same whether the employee draws one or 15 weeks of benefits.¹¹

The "benefit-ratio" method of experience rating awards lower employer contribution rates on the basis of a low ratio between the total benefits paid to present or former employees over a three-year period and the employer's total payroll for the same period. The reserve-ratio plan, in contrast, measures the ratio between the net reserve (total contributions minus total benefits) and the average annual payroll in preceding years.

In both the Cliffe and benefit-ratio types of plans, falling benefit payments and rising payrolls, resulting from a continued general increase in employment rather than from individual employment stabilization efforts, can lead automatically to lower employer contribution rates. Under the reserve-ratio plans, on the other hand, an increasing reserve caused by a decline in benefits due to increased employment is likely to be offset somewhat by a higher payroll, and the ratio between the two remains the same if the two have risen in the same proportion. The fact that the reserve-ratio plans take account of the employer's benefit and contribution experience since the beginning, rather than only during the preceding three years as in the two other plans, also accounts for greater stability of rates in the face of a continued increase in employment.

This contrast is shown clearly in the proportion of employers receiving rate reductions under each type of experience rating. During 1943, 84.5 per cent of the eligible employers qualified for lower-than-standard contribution rates in the seven states with the Cliffe plan, and 80.6 per cent got lower rates in the five states with benefit-ratio plans. On the other hand, only 69 per cent of the eligible employers received lower rates in the twenty-five states with reserve-ratio plans.¹²

¹¹ This was one of the major defects pointed out by the Unanimous Report (*Experience Rating under Unemployment Compensation Laws*), *ibid.*, p. 37. For further analysis and criticism of the Cliffe plan, see Adolph Appleman, "Notes on the Cliffe Plan of Experience Rating," *Personnel*, Vol. 17 (Aug., 1940), pp. 67-74. Mr. Cliffe describes and defends the plan in "The Texas Plan of Experience Rating," *Personnel*, Vol. 17 (Nov., 1940), pp. 151-61.

¹² "Experience-Rating Operations in 1943," *op. cit.*, Table 4, p. 15.

With several exceptions,¹³ however, the reserve-ratio plans do not appear to have been free from the influence of rising employment and payrolls. The over-all picture of states with experience rating shows that from 1941 to 1943 an increasing proportion of employers have qualified for reduced contribution rates. (Table II.) Surely few people would seriously contend that in 1943 three-fourths of all eligible employers in all types of industry in 40 states had succeeded in "stabilizing" employment by their own efforts! Of course, in the 16 states which provide for higher-than-standard rates, some employers in industries

TABLE II.—PERCENTAGE DISTRIBUTION OF ACTIVE ACCOUNTS ELIGIBLE FOR RATE MODIFICATION, BY EMPLOYER CONTRIBUTION RATE, IN STATES WITH EXPERIENCE RATING IN EFFECT

Year	Number of States	All Rates %	Below Standard	Standard*	Above Standard
1941	17	100.0	54.9	31.8	13.3 (5 states)
1942	34	100.0	67.4	24.1	8.5 (15 states)
1943	40	100.0	74.8	19.9	5.3 (15 states)

Source: Compiled from Tables 3 and 4, "Experience-Rating Operations in 1943," *op. cit.*, pp. 14-15, Table I, *Social Security Bulletin*, Vol. 5 (June, 1942), p. 12; *Social Security Bulletin* Vol. 6 (Feb., 1943), p. 9.

* Standard rate is 2.7 per cent in all states except Michigan, where it is 3 per cent.

such as bituminous coal mining and building construction had to pay rates above 2.7 per cent, but in Hawaii 98 per cent of building construction employers qualified for below-standard rates.¹⁴ Did they all "stabilize" employment by their own individual efforts, or was the construction boom after Pearl Harbor responsible?

V

A few states have apparently recognized the potential danger in widespread reductions of employer contribution rates during periods of rising payrolls. In contrast to most states, average contribution rates in Nebraska and Wisconsin were higher during 1943 than during 1941. The reserve-ratio plans in effect in these states differed from the usual reserve-ratio laws. Thus, in Nebraska the greatest amount of benefits in any year, 1940-42, is subtracted from the employer's reserve balance at the beginning of 1943, and the remainder is then expressed as a ratio of either his average annual payroll for the three years or the 1942 payroll, whichever is higher. A somewhat similar method is used in

¹³ Principally Wisconsin and Nebraska, where there has been an increase in average rates between 1941 and 1943 because of a special type of reserve ratio plan in effect in these states. This point is discussed in the following section.

¹⁴ "Experience-Rating Operations in 1943," *op. cit.*, p. 19.

Wisconsin. The employer's reserve balance is expressed as a percentage of the highest of the following: (1) payroll for the year ending, (2) 3-year average annual payroll, or (3) 60 per cent of the highest annual payroll in any one of the three years. Under these methods, reserve ratios are lower and contribution rates higher, in periods of rising payrolls, than under the usual reserve-ratio plan or other experience-rating methods.

Nine other states, including Wisconsin but not Nebraska, collected additional contributions during 1943 under special "war risk" provisions added to their laws. Supplementary rates of varying amounts are assessed against employers with specified increases in their payrolls.¹⁵ The statement of policy in the Wisconsin law expresses clearly the need for such provisions:¹⁶

Wartime expansion has increased the payrolls of some employers substantially over their 1940 payrolls, with a corresponding increase in the potential post-war benefit liabilities of their reserve accounts, but without a corresponding increase in the level of those accounts under this chapter. Unless corrected, this condition would endanger the post-war solvency of such accounts, and would require higher contribution rates to be collected from employers generally, during the post-war years. Therefore, such accounts should now be built up toward more nearly adequate post-war levels, to help avoid (or reduce) the post-war rate increases which would otherwise result, by collecting contributions from such employers at higher-war-time rates, based on their payroll increases and the relative adequacy of their accounts.

While these provisions were undoubtedly included in part because the states realized that the federal government would bear the added cost where war contractors were involved, they are a step in the direction of correcting the anomalous results which experience rating has brought under rising payrolls. Yet apparently only in three of these states was the operation of the war-risk provision sufficient in 1943 to reverse the increasing trend toward reduced revenues from employer contributions.¹⁷

These war-risk provisions are presumably temporary devices. But it is not inconceivable that they may develop into more permanent methods by which states, or the federal government, can counteract the tendency of experience rating to reduce over-all contribution rates, without regard to individual employer stabilization efforts, in good

¹⁵ For a full discussion, see Gladys R. Friedman, "War-Risk Contribution Provisions in State Unemployment Compensation Laws," *Social Security Bulletin*, Vol. 7 (May, 1944), pp. 2-8. Also, "Experience-Rating Operations in 1943," *op. cit.*, pp. 11-12, and Table 3, p. 14.

¹⁶ Sec. 108.18(7) of the Wisconsin law.

¹⁷ "Experience-Rating Operations in 1943," *op. cit.*, Table 3, p. 14.

times, and to increase them in bad times. The changes adopted in the reserve-ratio plans of Nebraska and Wisconsin are also designed to counteract this tendency, and deserve serious consideration by other states. One of the most serious objections to present experience rating in operation is that the ability of state reserve funds to pay future adequate benefits is unnecessarily jeopardized by rate reductions.

If standard rates of contributions were raised in periods of high unemployment and reduced in periods of low unemployment, it would still be possible to retain the experience-rating feature. Reductions from the current standard rate could be granted to those firms which met the necessary qualifications, or each firm's rate might be based on its experience over the cycle period. But the stabilization incentive might be reduced, and with present experience rating formulas the variations in standard rates would have to be still wider to compensate for the perverse effects of these formulas.

VI

Without variations in average contribution rates as suggested by the British proposal, the effects of experience rating on aggregate demand and employment will certainly be injurious. In periods of rising payrolls, contribution rates and expected revenues will fall, and in periods of falling payrolls, rates and revenues will have to be increased.

An analysis of these effects requires consideration of the probable incidence of the tax on employers' payrolls, which finances unemployment compensation exclusively in nearly every state. Though some economists are more inclined than others to stress shifting in one direction, most would probably agree that the incidence of this tax is diffused.¹⁸ In perfect labor and product markets, it would eventually rest on the wage earners, but because of imperfections, it is probable that consumers bear some of the burden, through higher prices, and employers through reduced profits in certain firms and industries.

If the tax is eventually borne by workers, as some economists have contended, the effect of a decrease in average contribution rates during

¹⁸ Various theories on the incidence of the payroll tax are well summarized by C. Ward Macy, in "Social Security Taxes in the War Finance Program," *Jour. Pol. Econ.*, Vol. LI (April, 1943), pp. 135-40. The best and most extended discussion in the literature is found in Seymour Harris, *Economics of Social Security* (New York, 1941), Pt. III. Professor Harris concludes: "The more or less accepted theory that labor ultimately pays the cost either through a reduction of money wages or of employment is subject to *important reservations. A substantial part of the burden falls elsewhere.* The marginal productivity theory upon which the theory of incidence has been based is, itself, subject to reservations and amplifications. . . . Furthermore, the theory of monopolistic competition with its concentration on imperfect elasticity of supplies of factors and of demand for commodities also suggests to the student of social security the possibility of putting part of the burden on the consumer and factors of production other than labor" (pp. 440-41).

good times and an increase in bad times is to accentuate the swings in worker incomes and hence in aggregate demand.¹⁹ This result, of course, assumes no considerable time lag in shifting, and therefore is probably unrealistic.

But suppose the changes in contribution rates are reflected in higher or lower profits, or in higher or lower prices. It is clear that an increase in costs which raises prices or lowers profits does not furnish a sound basis for recovery. Conversely, during the boom period, when full employment has been reached, lower prices and increased profits resulting from reduced contribution rates under experience rating may have adverse results in the opposite direction.

Furthermore, if the prospect of lower contribution rates under experience rating furnishes an inducement for employment stabilization, as proponents contend, will the increases in average rates occasioned by falling employment act as a "tax" on employment? For every man hired in a period of business depression, an additional cost equal to 2.7 per cent of his earnings (or more in states with above-standard rates) will have to be paid by most employers. Yet at a time when the only problem in the hiring of men was to find them (as during 1943), the tax on payrolls in 40 states averaged only 1.8 per cent. To be sure, the difference is not great in percentage terms, but to the extent that payroll taxes are regarded as variable costs, even small absolute differences may be important.²⁰ In addition, an increase in variable costs during a period of depression may have a depressing effect on employers' investment decisions, thus further reducing aggregate demand.

VII

The effects of experience rating on aggregate demand are not the only effects worthy of consideration, however. Experience rating was directed primarily toward individual employers, though most states have modified the full incentive value of tax reductions by pooling contributions to insure greater adequacy of the total fund. What is the incentive value of experience rating in encouraging employment stabilization efforts by individual firms? This question has been the subject of much controversy between partisans on both sides.

It is my belief, based on field studies several years ago in Wisconsin when this state pioneered in experience rating, that the prospect of a

¹⁹ The effect on worker incomes is, of course, offset to some extent by opposite variations in benefit payments.

²⁰ An interesting and unexplored question here is whether employers *do* regard payroll taxes as variable costs, or whether, through questionable cost-accounting practices, they consider these taxes as part of fixed overhead for the year.

tax reduction can start employers thinking of ways to iron out day-to-day or intermittent irregularities in employment and to reduce seasonal unemployment.²¹ The prospect of a reduced contribution rate is a tangible financial incentive for many firms which have overlooked the intangible costs of irregular employment.

This is a real gain, if the cost is not too great. But once attained, it may be questioned whether experience rating is necessary to encourage employers to *continue* these desirable employment practices. Firms which have discovered, after stabilizing employment under the impetus of experience rating, that irregular employment is costly *in itself* are not likely to go back to their old haphazard methods of hiring and firing, transfers, producing excessive amounts of standard products in peak seasons and curtailing operations afterward, etc.²²

Only where a close balance is achieved between the costs of stabilization (such as storage costs of inventory manufactured in advance of orders) and the lower contribution rate would the modification or abandonment of experience rating in its present forms result in a slackening of stabilization efforts where they are practical. Even in this case a firm may decide that the newly-discovered advantages of more regular employment and steady production offset the costs of attaining them.

Some other effects of experience rating in practice must be weighed against any positive gains resulting from greater efforts by employers to stabilize employment. Six points stand out in a review of the results under experience rating.²³

1. The experience-rating formulas in use make it possible for an employer in a naturally stable business to qualify for a lower contribution rate without much effort on his part, while an employer in an unstable industry may be unable to qualify for the lower rate even though he is doing a better job of stabilizing than most firms in his

²¹ "Employment Stabilization and the Wisconsin Act," *Am. Econ. Rev.*, Vol. XXIX, No. 4 (Dec., 1939), pp. 712-13, and chap. 4 of *Employment Stabilization and the Wisconsin Act* ([Employment Security Memorandum No. 10], Social Security Board, Washington, September, 1940). See also Herman Feldman, *Stabilizing Jobs and Wages* (New York, 1940), chap. xvi; and *To Make Jobs More Steady and to Make More Steady Jobs* (Minnesota American Legion Foundation, St. Paul, 1944), a collection of 109 case studies of employment stabilization, largely in states with experience rating. These case studies were made under the direction of Dr. Emerson P. Schmidt, formerly of the University of Minnesota, and they constitute the most comprehensive collection available.

²² In 1937-38 officials of a number of Wisconsin firms which also had plants in states without experience rating stated that stabilization devices adopted under stimulus of the Wisconsin act were applied in the other plants, or that there was no difference in stabilization efforts between the different plants of the same company.

²³ The following discussion of effects of experience rating is not meant to be exhaustive. For a suggestive analysis, see Karl Pribram, "Employment Stabilization through Pay Roll Taxation," *Quart. Jour. Econ.*, Vol. LVII (Nov., 1942), pp. 142-52.

industry.²⁴ There are notable exceptions, of course, and strong advocates of experience rating always cite the fact that some employers in nearly every line of business qualify for lower rates. For example, 35 per cent of the rated accounts in bituminous coal mining got lower rates in 1943, and the same was true of 43 per cent of those in building construction. Yet 87 per cent of the rated accounts in finance, insurance and real estate, and electric and gas utilities—which are all comparatively stable industries—received lower rates in 1943.²⁵

The fact that as many as one-third of the eligible employers in bituminous coal got lower rates would seem to be as much the result of the present demand for coal as of any special efforts they made to stabilize their employment. Similarly, high rates in ordinarily stable industries might be found in firms hit by wartime priorities or other controls. Only a field study of the particular firms would show the extent to which this is or is not true, and one of the few that have been made indicated that special characteristics of the firm's business played a more important part in rate reductions or increases than did individual stabilization efforts.²⁶ Consequently, the stabilization incentive, through rate reductions, is somewhat dulled.

2. Payment of higher contribution rates by firms in unstable industries and lower contribution rates by firms in stable industries may not be the best way to allocate the "social costs" of irregular employ-

²⁴ The contrast with accident compensation in this respect is striking. The contribution rate that an employer pays is a composite of the accident experience of the industry in which he is classified, and his individual accident experience *within* that industry. Thus it is possible for an employer with a good safety program to qualify for a rate lower than the average for his industry, even though he is in an industry where the accident hazard is high.

Would it be possible to do this in unemployment compensation? A member of the Social Security Board, Mr. George E. Bigge, has commented on this aspect of the problem: "To reflect individual achievement in this field it would be necessary to relate a given employer's experience to a norm for his industry, but this has been too difficult and is not attempted. England tried it for a time but soon gave it up." ("Strength and Weakness of Our Unemployment Compensation Program," in *Social Security in America*, addresses at the National Conference on Social Security sponsored by the Chamber of Commerce of the United States, January, 1944, p. 31.)

²⁵ "Experience-Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944), Table 6, p. 18.

²⁶ Myers, *Employment Stabilization and the Wisconsin Act* (Employment Security Memorandum No. 10): "Close examination of the characteristics of firms within the same industrial classification or subclassification indicated that very few were comparable; in a very real sense, almost each firm was unique. One firm's line of products might be slightly different from that of its competitors. This was reflected in different seasonality of demand, and varying ability to manufacture for stock or transfer between departments. . . . These factors, rather than the sincerity and thoroughness of stabilization efforts, appeared to be the more usual explanation of differences in benefit-contribution percentages between firms in the same group" (p. 107). The same point was made in the Majority Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, September, 1940), p. 36.

ment. When confronted with the fact that a greater proportion of firms in stable industries qualify for lower rates than do those in unstable industries, advocates of experience rating shift their argument to "social cost" grounds. They argue that unstable industries *should* pay for a larger share of the costs of unemployment compensation than should stable industries.²⁷

But this assumes that the incidence of the payroll tax is clearly on consumers through higher prices. To the extent that the tax is shifted to workers, because it is an added labor cost, or to owners through reduced profits, the social cost argument appears in a different light. Why should workers who stay in unstable industries pay for the costs of unemployment inherent in their jobs? With a few exceptions, the rate of pay in seasonal industries is not generally sufficient to compensate for irregular employment. Furthermore, if the tax is partly borne by profits, is it sound public policy to raise taxes (and reduce profits) in unstable industries—such as the capital-goods industries—when unemployment increases during downturn and depression?

3. Under present experience-rating provisions, employers may be encouraged to reduce benefits by devices which do not stabilize employment but which count equally in determining contribution-rate reductions. These have been discussed in more detail elsewhere,²⁸ and include the following: (1) under-employment through excessive spreading of work down to the benefit-rate level, (2) hiring during peak seasons workers who are ineligible for benefits, (3) laying off unskilled workers before they acquire eligibility for benefits under the law, and (4) laying off workers with low benefit rights or low "benefit wages" chargeable to the employer.

4. Employment stabilization may mean more stable employment for a smaller number of workers. When seasonal unemployment is reduced

²⁷ Although he is critical of certain aspects of experience rating, Professor Edwin E. Witte has taken this position: "Honest cost accounting requires that all costs be ascertained and properly allocated to the commodities produced or services rendered. An industry which operates intermittently occasions great costs to its employees and to society through its methods of operation. Whether it can or cannot operate more regularly, the unemployment which arises by reason of its intermittent or irregular operation is a cost which should be charged to the establishment producing the goods or services and which gets the profits of the enterprise. Every reason which can be advanced for contributions from employers only—and in all but six states all contributions come from the employers—logically leads to variable contribution rates—rates adjusted to risk and costs." *Social Service Review*, Vol. XIV (Sept., 1940), p. 433.

²⁸ "Employment Stabilization and the Wisconsin Act," *Am. Econ. Rev.*, Vol. XXIX, No. 4 (Dec., 1939), pp. 714-16. Professor Witte has condemned this aspect of experience rating, because "it is possible to reduce compensable unemployment without reducing unemployment, through taking advantage of the qualifications and exclusions of these laws so as to throw most of the unemployment into these groups among the employees who have no benefit rights. So long as this loophole exists, experience rating is very defective." *Social Service Review*, Vol. XIV, p. 435.

by manufacturing for inventory during slack periods, for example, fewer additional workers are needed in rush times. This same tendency, incidentally, is found in "guaranteed employment" plans where one class of workers does not participate in the guarantee, or in schemes such as the "decasualization" of the longshore industry. More stable employment for a smaller number of workers, however, is not necessarily bad, unless everyone agrees that the way to "reduce" unemployment is to spread work.

5. The competition of the various state legislatures to provide generous experience-rating provisions for employers in their states is said to have been at the expense of adequate benefit provisions.²⁹ This appears to be particularly true of benefit "disqualification" provisions. Under these provisions, workers who leave their jobs voluntarily for legitimate personal reasons (such as illness in family, lack of transportation, etc.) lose their entire accumulated benefit rights, even though they later are unable to find work, simply because their separation is "without good cause attributable to the employer."³⁰ Provisions of this sort are difficult to defend but the number of beneficiaries affected by them is probably not very great.³¹

Minimum and maximum weekly benefit rates, maximum duration of benefits, and percentage of beneficiaries exhausting their benefit rights before reemployment are other tests of benefit adequacy. Here the differences between states with experience rating and those without it are not great enough to be significant, as Table III shows. Since 1941 there has been a gradual liberalization of benefit amounts and duration, in experience-rating states as well as in others, and this may continue when state legislatures meet during 1945. There is still much room for

²⁹ Friedman and Wandel, *op. cit.*, p. 10.

³⁰ George E. Bigge cites some concrete examples of this tendency in "Strength and Weakness of Our Unemployment Compensation Program," *op. cit.*, pp. 24-34. In his opinion, "This general tendency to impose more numerous and more rigorous disqualifications is one of the most serious developments of recent years, and there seems to be little doubt that it is related to increasing emphasis on tax reduction in the form of experience rating. . . . It is very significant that of the states which do not have experience rating not one has this kind of disqualification, especially the mandatory cancellation of benefit rights, and the double penalties; whereas in the states which have reduced rates (under experience rating), there has been a rapid spread of such disqualifications" (pp. 30, 32). States which do not have disqualification in the form of cancellation of benefit rights usually provide for a penalty by postponing benefit payments for a number of weeks. See also Ewan Clague and Ruth Reticker, "Trends in Disqualification from Benefits under State Unemployment Compensation Laws," *Social Security Bulletin*, Vol. 7 (Jan., 1944), pp. 12-23.

³¹ Conclusive data are lacking. Paul A. Raushenbush, Director of Unemployment Compensation in Wisconsin, in his testimony before the George Committee, quoted a figure of 1.4 per cent of all claimants disallowed benefits in 1942 for "other reasons." *Hearings before the Special Committee on Post-War Economic Policy and Planning*, United States Senate, Part 3, "The Problem of Unemployment and Reemployment after the War; Unemployment Compensation" (Washington, 1944), p. 866.

improvement, especially in extending the duration of benefits, raising maximum benefit rates because of higher weekly wages,³² and ironing

TABLE III.—BENEFIT STANDARDS IN STATE UNEMPLOYMENT COMPENSATION LAWS
(as of January, 1944)

Type of Law	Minimum Weekly Benefit (average)	Maximum Weekly Benefit (average)	Maximum Duration of Benefits (aver. weeks)	Per Cent of Beneficiaries Exhausting Benefit Rights (1942)
Reserve ratio (25 states)	\$5.50	\$16.80	17.0	35.9%
Cliffe plan (7 states)	5.00	16.40	18.3	43.6%
Benefit ratio (5 states)	7.20	19.00	18.2	38.3%
Combined plans (2 states)	6.50	15.00	17.0	41.5%
Compensable separations (1 state)	6.00	22.00	18.0	22.5%
Total—all states with exp. rating (40 states)	5.70	17.10	17.4 ^a	37.6%
Experience rating effective during (1944-45 (4 states)	5.25	16.50	17.5	47.8%
No experience rating (7 states)	5.96	16.70	17.5 ^b	36.1%

Source: Minimum and maximum benefit rates from Helen Ward Tippy, "Comparison of Benefit Schedules, Unemployment Compensation, and Workmen's Compensation," *Social Security Bulletin*, Vol. 7 (Mar., 1944), Table 2, p. 8; data on maximum duration and per cent of beneficiaries exhausting benefit rights in 1942 from "Duration of Unemployment Benefits, Benefit Years Ended in 1942," *Social Security Bulletin*, April, 1944, pp. 16-23, Tables 1 and 2, and from state laws as subsequently amended during 1943.

^a In 11 of the 40 states with experience rating in 1943, the duration of benefits was uniform for all eligible claimants, regardless of previous wage credits. Duration was variable in the other states.

^b Four of the 7 states without experience rating had uniform duration provisions.

out inequalities between states. But this need for improvement is not confined to states with experience rating. Only if the pressure for con-

³² There is a possible danger, however, that a high benefit rate based on wartime weekly wages with overtime would be too high a percentage of weekly earnings at a 40-hour week, and that "malingering" might be encouraged as a consequence.

tinued low payroll taxes prevents needed liberalization of the benefit structure in 1945, can experience rating be blamed.

6. It is clear from the earlier discussion of variations in contribution rates and revenues under experience rating that the ability of some state funds to provide for future large demands is being endangered, and in many other states this may be true if benefit standards are liberalized.³³ This possibility is less likely in the states with "war risk" provisions in their laws, but it should be remembered that during 1943 only 9 of the 40 states with experience rating had these provisions in effect. Furthermore, of the 40 states with experience rating in operation during 1943, only 16 provided for higher-than-standard rates as a partial offset to the loss of revenues through lower-than-standard rates, and two of these abandoned higher-than-standard rates during 1943.³⁴

VIII

The conclusions reached in this brief reëxamination of experience rating in state unemployment compensation laws may be summarized as follows:

1. Variations in contribution rates and revenues for payment of benefits are exactly the opposite of the variations in social security contributions suggested as desirable over the cycle by the British White Paper on *Employment Policy*.

2. Experience rating was intended to encourage individual employers to stabilize employment. Yet the mechanics of experience-rating provisions make it possible for employers as a group to qualify for lower

³³ The desire to keep experience rating has also led many states to oppose any tendency toward a national system of unemployment compensation, and the existence of 51 separate accounting reserves in Washington means that a state faced with heavy post-war unemployment might exhaust its reserve while another state more fortunately situated for the post-war period would have ample funds. Yet the latter states will oppose any suggestion that some of their revenues ought to be used to pay benefits in other states. This is a little bit like a man's saying that the fire insurance company should not use *his* premiums to pay claims because *his* house has not yet burned down. It is also reminiscent of the "plant reserves" controversy in Wisconsin. A "balancing account" was eventually established in that state to take care of exhausted company reserves, and the "Federal unemployment account" established by Congress in the Social Security act amendments of October, 1944, is a step in the same direction.

³⁴ These were Cliffe-plan states, Delaware and Texas. "Experience-Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944), Table 4, p. 15. Two additional states, Indiana and Oklahoma, will have a higher-than-standard rate beginning in 1945 (Table 2, p. 13).

The Unanimous Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, 1940), recommended that "it is essential to a sound experience-rating system that the maximum contribution rate should be higher than the general rate of 2.7 per cent which would presumably exist if there were no individual rate variations" (p. 45).

contribution rates when employment and payrolls are rising, largely regardless of their own individual employment stabilization efforts. Increases in contribution rates generally will be necessary, on the other hand, when employment and payrolls are declining.

3. The probable effect of these variations in contribution rates and revenues is to accentuate, rather than to counteract, the swings that ordinarily occur in aggregate demand. Thus, the effect may be unstabilizing on the economy, although the intended effect was to encourage stabilization of employment by individual firms. Furthermore, increases in average rates in depression may act as a tax on the giving of jobs.

4. Although experience rating can serve as an inducement to employers to reduce intermittent and seasonal employment irregularities, which are more within their control, the gains from such stabilization, once they are realized, may be sufficient in themselves to encourage continued efforts. After an initial period of several years, therefore, the novelty of the incentive may wear off.

5. A review of some of the other effects of experience rating in operation indicates that (a) rate reductions are related as much to the stability of the industry as they are to stabilization efforts of the firm, (b) such variations in rates between industries may not be a sound method of allocating the "social costs" of unemployment, (c) firms may increase their chances of qualifying for lower rates by using devices which avoid benefits but do not stabilize employment, (d) employment stabilization may result in more stable work for a smaller number of workers, although this is not necessarily bad, (e) competition between states to liberalize experience rating appears to have been at the expense of adequate benefit provisions so far as "disqualifications" are concerned, and (f) present variations in contribution rates and revenues under experience rating jeopardize the ability of states to meet large drains on their funds in the future, especially if benefits are liberalized.

6. The "war risk" provisions effective in 9 states during 1943 are a significant development because they are a recognition of the unwisdom of lowering contribution rates generally in periods of rising payrolls. Provisions of this type might well become a permanent part of state unemployment compensation laws.

So long as unemployment compensation is developed and administered in 51 different jurisdictions, however, it seems unlikely that the ingenious suggestion involved in the British proposal will receive much encouragement in this country. The only practical possibility in the immediate future is for the 44 states whose legislatures meet during 1945 to consider the strengthening of their unemployment compensation

laws in terms of reserves and benefit standards. Continued concern about reducing payroll tax rates in a period of high payrolls can only lead to an accentuation of present undesirable results.

7. This reëxamination of experience rating suggests the general conclusion that, without proper safeguards in the form of war-risk provisions, or improvements in the experience-rating formula as in Nebraska and Wisconsin, the probable social gains from experience rating as it now exists are outweighed by its disadvantages. There is a strong movement in Washington to federalize unemployment compensation and eliminate experience rating, and there are equally strong efforts in the states to retain the present federal-state system with experience rating of each state's choice. Logically, there is no reason why some form of experience rating could not be continued under a federal system, or why certain safeguards and minimum standards could not be incorporated in the state systems. Unfortunately, the whole issue is tied in with a political controversy, and therefore it is not likely to be resolved solely upon its own merits.

FULL EMPLOYMENT IN A FREE SOCIETY

By ARTHUR SMITHIES*

I. Introduction

In his *Report on Full Employment in a Free Society*,¹ Sir William Beveridge has been untrammelled by official reticence in stating what he considers to be the implications of a full employment policy. He contends that, to deserve the name, a full employment policy must mean that the central government accepts responsibility for the level of employment: "Full employment cannot be won and held without a great extension of the responsibilities and powers of the State exercised through organs of the central Government. No power less than that of the State can ensure adequate total outlay at all times, or can control, in the general interest, the location of industry and the use of land. To ask for full employment while objecting to these extensions of State activity is to will the end and refuse the means." It is like shouting for victory in total war while rejecting compulsory service and rationing" (p. 36). He reinforces his argument by demonstrating that full employment has not been maintained for extended periods in the past, and arguing there is no theoretical reason to believe that it will be maintained in the future if the State does not accept this responsibility.²

Sir William goes further in his definition of the fullness of full employment than is usual amongst economists. In rejecting definitions which permit the number of unfilled vacancies to be less than the number of unemployed, he states: "Full employment in this Report means more than that in two ways. It means having always more vacant jobs than unemployed men, not slightly fewer jobs. It means that the jobs are at fair wages, of such a kind, and so located that the unemployed men can reasonably be expected to take them; it means by consequence, that the normal lag between losing one job and finding another will be

* The author, on leave from the University of Michigan, where he is associate professor of economics, is at present chief fiscal analyst in the Bureau of the Budget, Washington, D C. The opinions he expresses are his personal views and do not necessarily reflect the position of the Bureau.

¹ Sir William H. Beveridge, *Report on Full Employment in a Free Society* (London, Allen and Unwin, 1944); *Full Employment in a Free Society* (New York, Norton, 1945). Page numbers in both editions are identical.

² Appendix B.

very short" (p. 18). In other words, "the labour market should always be a seller's market rather than a buyer's market" (p. 19). Whether or not a policy based on this ambitious definition is practicable is one of the most debatable questions raised by the book, and must be subjected to exhaustive discussion. However, even if it is agreed that employment should be stabilized at a level somewhat lower than Beveridge prescribes, the principles that should govern a full employment policy are in no way impugned.

As I have said, Beveridge bases his case for a full employment policy on the alleged failure of private enterprise alone to provide satisfactory levels of employment. However strong the case may be on this ground, an irrefutable case can be made on the ground that the inescapable functions of government after the war will be so large that a policy which has due regard to the level of employment will be mandatory.

Even according to the most conservative estimates for the United States the post-war federal budget will be at least twice its size in the heyday of the New Deal. With programs of this magnitude, a fiscal policy that ignored the impact of the government's actions on the national economy would only by the sheerest accident successfully navigate the channel between unemployment and inflation. Suppose, for instance, that full and stable employment could be maintained with a balanced budget and a given tax system. Then any substantial change in the types of taxes collected, such as a change from direct to indirect or from corporate to individual, would almost certainly have inflationary or deflationary consequences. This, of course, has always been true, but when government programs were small in relation to the whole economy, these consequences could be ignored. Now they cannot. It is interesting to note that British economists expect that in the first post-war years, the principles of national budgeting propounded in the Beveridge report will have to be applied in England to avoid inflation rather than to eliminate unemployment.

The three conditions for full employment propounded in the Report are (1) adequate total outlay; (2) controlled location of industry; and (3) organized mobility of labor. These conditions are held to be necessary, but it is admitted that they are not sufficient if full employment is to be associated with a stable price level. By far the greatest attention is given to the question of outlay, but one of the important contributions of the Report is that due recognition is given to the need for attacking unemployment from the supply side as well as the demand side. I shall consider these conditions in the following sections.

II. *Adequate Outlay*

Maintaining adequate outlay means that the national income must be held at a level which is consistent with full employment. The Report

classifies outlays as: Private Consumption Outlay; Net Private Investment Outlay; Balance of Payments Abroad; Public Outlays on goods and Services from Revenue; and Public Outlay on Goods and Services from Loans. The desired total outlay can be reached through government action by any of three main routes or by a combination of them. These routes are:

“Route I. Increase of public outlay, leaving rates of taxation unchanged.

“Route II. Increase of public outlay, with all-round increase of taxation sufficient to balance public income and expenditure.

“Route III. All-round reduction of rates of taxation, leaving public outlay unchanged” (p. 142).

This formulation assumes, of course, that the economy is subject to chronic unemployment. If these policies were reversed they would indicate the methods of avoiding inflation.

Route I stresses public outlay and its repercussions through increased income on consumers' outlay. Route III achieves the desired increase in total outlay by increasing disposable private income and thereby private outlay. Route II, which Beveridge calls the path of orthodox finance, increases total outlay in the same way as Route I, but since taxes are increased *pari passu* with expenditures, private outlay tends to be reduced. However, the whole operation expands total outlay since it is assumed that taxes are paid partly out of savings. The choice of routes will have a marked bearing on the relation of public to total outlays at the full employment level of income. For instance, if full employment had been achieved in Great Britain in 1938, public outlays would have been 21 per cent of the total with Route I, 33 per cent with Route II and 15 per cent with Route III.⁸ Government loan expenditure would have been 4.4 per cent of total national expenditures with Route I, zero with Route II and 6.6 per cent with Route III. It is worthy of comment that these estimates assume the same rate of private capital formation no matter which route is chosen. The Report is rightly reluctant to make estimates of private investment under the three hypotheses, but the fact remains that the three routes may have very different effects on private investment. It would be interesting, indeed, to know whether business would respond with more enthusiasm to the low taxes, high consumers' demand, and high deficit of Route III or to the high taxes, low consumers' demand, and the balanced budget of Route II.

⁸ These statistical estimates, together with estimates for the post-war period are the subject of a most interesting statistical appendix to the Report prepared by Mr. Nicholas Kaldor. Beveridge also acknowledged his general indebtedness to the Institute of Statistics at Oxford, and in particular to the volume of *Statistics of the Economics of Full Employment* published (B. H. Blackwell, Oxford) simultaneously with the Report.

For 1938 in Great Britain, Beveridge would have rejected Route III on the ground that public expenditure in that year was not sufficient from the social point of view. While tax reduction could have produced enough aggregate demand, greater social utility could have been produced by some increase in public expenditures. He also dismisses full application of the orthodox financial Route II with the remark that, "Rigidly orthodox finance, in the sense of an annually balanced budget, involves, in the political and economic conditions of Britain, an impractical route to full employment." Although he does not state what those conditions are, I imagine that a solution which required public outlay to amount to 33 per cent of the whole national income would not have been acceptable to the United Kingdom in 1938. Beveridge does not regard budget balancing as mandatory. If the productivity of the British economy increases as it has in the past, a substantial annual increase in the national debt could occur every year without increasing the proportion of interest payments to national income.⁴ Consequently, interest charges could increase, and full employment could be maintained and inflation avoided without further increases of tax rates or reductions of other items of government expenditure. He is also the easier in his mind about deficits since a substantial part of government outlays will be for productive durable goods and, "Few people will expect that all these should be paid for out of current revenue" (p. 149). His chief concern with an increasing national debt is that it enlarges the *rentier* interest. He evidently does not contemplate that this tendency will be offset by lower interest rates or by the central bank increasing its holdings of government securities.

Having rejected Routes II and III in their pure form for 1938, Beveridge turns to Route I, the public outlay method. However, he does not insist on avoiding increases of taxation. On the contrary, one of his rules for public finance is that "it is better to provide the means for outlay by taxing than by borrowing" (p. 147). This, however, does not mean Route II. On what it does mean he is not particularly clear, and he finally falls back on the rule of thumb, that current expenditures should be met by taxation and capital expenditures by borrowing.

One of the great contributions of the Report is its out-of-hand rejection of expenditure for its own sake. Building pyramids may have provided full employment for Egypt, but in addition the Egyptians evidently approved of them for their own sake. The United States requires its pyramids to be equipped with central heating and indoor plumbing. If the notion that public expenditures should be undertaken for no purpose other than providing employment is generally accepted, public administration would almost inevitably become irresponsible. Beveridge argues that the way to full employment is to destroy "the

giant evils of Want, Disease, Ignorance and Squalor, which are a scandal and a danger" (p. 150). If the public programs do these things, he contends, there would be no question of exercising the imagination to find new fields of expenditure to provide employment. The problem would rather be one of taxing to restrict private expenditures in order to make room for urgent public outlays. Beveridge speaks with great authority on the needs of Britain; we need a similar appraisal for the United States. †

On the question of taxation, the Report is far from complete, and as I have indicated above, the relation of taxation to expenditures is not clear. However, the essential point is made that if the government does pursue a full employment policy, the function of taxation is to achieve the desired balance between private and public expenditures in a way that will maintain full employment and avoid inflation. Rather than adopt the double-budget principle as a rule of thumb, the Report might well have followed the line suggested by the three routes. A given increase in total outlay can be achieved either by increasing expenditures or reducing taxes. Which alternative is chosen should depend on a comparison of the social utility of the increased public expenditures, on the one hand, and of the increased private expenditures resulting from the tax reduction, on the other. By this process of weighing alternatives expenditures and taxation should be adjusted so as to achieve the desired level of total outlay. At that level the "marginal social utility" of taxation should be equal to the "marginal social disutility" of taxation. (And if taxation is to be based on the principle of equal sacrifice the marginal disutility of taxation should be the same for all groups taxed.)

Application of this procedure would let the chips fall where they may so far as the government's budget is concerned. The rule may result in a deficit, a surplus or a balance. If it is insisted also that some particular budgetary condition should be imposed, it would be necessary to sacrifice either the employment or the utility condition. In a full employment economy, it would, of course, be the latter. The discussion of the three Routes has indicated that full employment is consistent with any particular budgetary condition. With this formulation, I would say that Beveridge rejects Routes II and III on the grounds that, with Route II, the marginal disutility of taxation would be greater than the marginal utility of expenditures, while with Route III it would be less.

Of course, society may have objectives other than achieving full employment and equalizing sacrifices. It may want to redistribute income and wealth, to provide special incentives, e.g., to private investment, or to discourage consumption of whisky. Such objectives would naturally call for modification of the principles suggested above. †

The process of balancing alternatives which I have indicated is

clearly one that cannot be performed by the economist alone. It must result from the operation of the whole democratic process. However vague this may be, I prefer it to the double-budget principle since the latter may lead to public construction of dubious value when it would be preferable to reduce taxation, and to underemphasis of expenditures for social welfare merely because they fall in the current rather than the capital budget. Needless to say, Beveridge does not make such errors in his policy recommendations, but this is in spite of his advocacy of the double-budget principle. No one could maintain that the Report is haggard by financial rules of thumb.

III. *A Post-War Full Employment Program for Britain*

The program proposed in the Report makes a frontal attack on the Giant Evils. It includes the comprehensive social security measures proposed in the Beveridge Social Security Report, education, public health, nutrition, and town and country planning. It is also recommended that the government should solve the special unemployment problem in the British coal mining industry by purchasing the coal output and selling it at prices that would insure heating at low costs to consumers.

The fluctuations in private outlays should be offset from year to year by varying the aggregate amount of total investment expenditure, public and private. The Report recommends that the whole of investment outlay should be controlled in order to achieve a consistent plan. Where private investment in particular should be encouraged, this should be done by low interest rates and incentive taxation.

Appendix C makes tentative statistical estimates of what is needed to achieve full employment in post-war Britain. Current expenditures are first estimated and taxes are set initially at a level sufficient to meet them. Then various investment plans are worked out. If the investment plan should in conjunction with other outlays yield a total greater than the full employment outlay, taxes should then be further increased and the excess of revenues over current expenditures should be appropriated to a sinking fund. On the other hand, if the investment plan does not yield sufficient total outlays, taxes should be reduced so that a deficit will appear in the current budget. The estimates indicate that, except in one case where a substantial import balance was assumed, the need for investment will be so great that a substantial surplus in the current budget will be required to avoid inflation. The estimates do not indicate how much of the investment will be public and how much private, and therefore the extent of government borrowing is not indicated. However, it seems to me that the magnitude of the programs that are held desirable is such that if they are adopted it

will be necessary in the first post-war years to bring the total government budget substantially into balance in order to avoid inflation.

The question may be raised whether it is desirable to make public investment bear the brunt of offsetting short-run fluctuations in private outlays. The Report might well have considered fluctuating tax rates as a stabilizing device. In his criticism of the British government's *White Paper on Employment Policy*,⁵ Beveridge objects to the notion of varying social security contributions as a violation of the insurance principle and suggests that it will be preferable to vary individual income taxes. But this does not appear as part of his positive recommendations.

IV. Budgeting for Full Employment

The Report recognizes that new administrative machinery or, at any rate, a profound revision of administrative practice is necessary if full employment is to become the policy of the nation. Beveridge recommends that every year the Minister of National Finance should submit to Parliament an employment budget. This budget would present estimates of the amount of private outlays on consumption and investment and the balance of payments that could be expected at the full employment level of national income. The difference between the total of these items and the desired total would represent the gap that the government should fill, either by increased expenditures or by positive measures to increase private expenditures. The Minister of National Finance would be assisted in his task by a National Investment Board which would make advance estimates of the amount of private investment that was planned, and would make recommendations as to the amount by which private investment should be increased and public investment undertaken.

This Board would also be empowered to provide government guarantees or loans at low interest rates to encourage the types of private investment that are held to be in the interests of the economy.

The Report recognizes three distinct fiscal functions. First, the Minister of National Finance will be concerned with total outlay. He will determine what government expenditures and revenues should be in order that public and private outlay combined should add up to the required total. Second, the department which controls public expenditures should exercise its customary vigilance to insure that the government gets value for its money. Third, the executive departments will be responsible for developing and executing programs within the limits set by the Minister of National Finance and under the supervision of

⁵ Originally published in the *Economic Journal*, Vol. LIV, No. 214 (June-Sept., 1944), and now reprinted, with minor changes, as a Postscript to the Report.

the Control Department. To the existing executive departments in Britain should be added a new Ministry of National Development which would cover the whole field of town and country planning, housing and transport.

The relation between the Ministry of Finance and the Department of Control raises some difficult questions of public administration. The Ministry of Finance obviously cannot determine aggregate expenditures in a vacuum. Different programs will have different effects on employment; and whether employment should be stimulated by increasing expenditures or reducing taxation will depend on the urgency of the programs from the social point of view. The Ministry must be much more than a statistical manipulator; it must have at its disposal extensive information gathered by the Department of Control. Considerations such as these argue for amalgamation of the two departments. But can the same department recommend an expansion of the whole government program and at the same time maintain its standard of vigilance over the individual programs? My own answer would be that, while the two functions should be kept distinct, they should be exercised by different divisions of the same department rather than by different departments. In the private field, I am not aware that industry takes great pains to protect its cost accountants from those who determine the size of total output.

V. The Location of Industry and the Mobility of Labor

The Report is a timely reminder to economists in this country that the demand for labor is only one side of the picture. In an exhaustive analysis of peacetime unemployment in Britain, Beveridge demonstrates the extremely wide fluctuations in the unemployment percentage that can occur as between regions. For instance, in 1929, unemployment was 5.6 per cent in London, while it was 19.3 per cent in Wales. In 1932, the corresponding figures were 13.5 per cent and 36.5 per cent. These differences indicate that unemployment cannot be eliminated merely by achieving adequate demand. Or, if it were eliminated by this method, it would be necessary to produce considerable inflation before unemployment disappeared in the more depressed areas. Consequently, Beveridge considers it essential that the state should assume responsibility for the mobility of labor and, in some cases, for the encouragement of new industries in regions of labor surplus.) The importance of this aspect of a full employment policy can hardly be over-emphasized in the post-war period. The migrations that have taken place to meet the needs of war production, both in Great Britain and in this country, will have produced a distribution of the labor force that will require considerable readjustment to meet the requirements of

peacetime demand. To control the location of industry would be a major function of the National Investment Board. The Report, however, does not make specific recommendations as to what administrative machinery would be required to handle the rather more delicate problem of controlling and encouraging personal migration.

Measures to insure that the demand for labor is in the same place as the supply should not be thought of merely as devices to obtain the full advantage of a given aggregate demand. If labor is enabled to move from a surplus area to a deficit area, employment will increase whether or not additional measures are taken to increase aggregate demand.

VI. *Internal Implications of Full Employment*

Beveridge recognizes that a full employment policy brings in its wake special price and wage problems. If a sellers' market is created for labor, will labor and business refrain from taking undue advantage of their positions? If labor as a whole presses for money-wage increases which are greater than the increase in the productivity of labor, prices will be forced up. If labor in a single industry obtains such an increase the price of the product of that industry will increase, and also unemployment will tend to increase both in that industry and elsewhere. Moreover, a sellers' market for labor will also mean a sellers' market for the products of industry. If productive resources are fully employed, the forces of competition, such as they are, will be weakened and monopolistic action will produce a continual upward pressure on prices.

There is little room for debate on these matters. We have had a sellers' market during the war and every belligerent country has had to resort to direct controls of prices and wages. Will these direct controls also be necessary in a full employment peacetime economy? Of course. The needs of war, have produced an aggregate demand greater than is necessary merely to achieve full employment. There can be little question that the need for direct controls would be less in peacetime than in wartime, but still it would not disappear.

What if the state acknowledged that unemployment of labor and unused capacity in industry were necessary to preserve competition and consequently budgeted not for full employment, but, say, for 5 per cent unemployment? The answer is that while this would diminish inflationary pressures, it would not eliminate them. No amount of unemployment that has ever occurred has eradicated monopoly. On the contrary contracting markets have frequently produced the opposite tendency.

Suppose the government is budgeting for some predetermined level of employment, and a monopolistic industry or a monopolistic union forces a price or a wage increase and throws out the Minister's calculations. Is he then to increase his budget, or is the state to discipline the monopoly?

list; and if the latter, how is it to be accomplished? This is a dilemma which no intelligent opponent of a full employment policy fails to emphasize and which no supporter can afford to ignore.

Beveridge's answer to all this is, first, that the trade union movement as a whole must accept responsibility for not pressing for wage increases in excess of productivity increases. Second, collective bargaining agreements should contain clauses by which the parties are pledged to accept arbitration and to give no support to strikes or lockouts in defiance of arbitration. Third, prices of essential commodities should be controlled. Fourth, the state should scrutinize and control monopolies, and should incorporate natural monopolies as public corporations. But it should not attempt to abolish monopolies which are the natural product of industrial growth. Beveridge says, "As a general principle it may be laid down that business competition must be free, not forced. If in any industry a strong tendency develops towards collaboration between independent units or towards their amalgamation, the part of the State should be not to try vainly to stop that tendency but to bring it under control" (p. 204). Beveridge does not, of course, maintain that monopoly control is needed only in a full employment economy. In fact, he is inclined to think that the monopolistic tendencies produced by full employment may be weaker than those produced by unemployment and shrinking markets.

To summarize this part of the discussion, it seems to me that the degree of control necessary will depend both on the "fullness" of the full employment aimed at, and on the coöperation of business and organized labor. If business and labor have the power to force prices and wages up, they also have the power to exercise restraint. Business and labor can preserve free collective bargaining and free pricing by coöperative action to secure price stability. Without this coöperation, the alternatives are direct government controls or abandonment of the full employment policy, neither of which is in the general or in any sectional interest.

✓ VII. *International Implications of Full Employment*

The Report maintains that a non-discriminatory multilateral trading system requires each of the great industrial countries of the world to pursue full employment policies at home or to take measures to insulate the rest of the world against the consequences of its not doing so. If, for instance, the United States becomes depressed and its imports contract, other countries will become short of foreign exchange and will be forced to contract their imports. Beveridge argues that it is unreasonable that other countries should suffer from the failure of one country to maintain employment. Therefore, they should insulate themselves by maintain-

ing or expanding their purchases from each other and restricting imports from the United States. The United States could relieve the situation to some extent by increasing its foreign lending if its imports decline; but this would not necessarily compensate the particular countries which had suffered a loss of export markets. It might result rather in increasing United States exports. Whatever the economic theorist might argue is correct international behavior, there can be little doubt that some countries are, in fact, likely to pursue policies of insulation.

Full employment, however, may not be enough. Some countries may still have export surpluses even though they do maintain full employment. Beveridge therefore requires a second condition for multilateral trading, namely, that "every country taking part should undertake to balance its accounts with the rest of the world" (p. 225). Of course, in a tautological sense every country must necessarily do this by hook or by crook. What he obviously means is that the export surplus countries must accept responsibility for achieving equilibrium by increasing their imports or their foreign investment. Otherwise, deficit countries will be forced to balance their accounts by either deflationary or restrictive and probably discriminatory measures which will disrupt the multilateral trading system.

The third condition for multilateral trading is that "the countries participating should have a reasonable stability and continuity of foreign economic policy" (p. 228). This does not mean that "the different nations have to surrender freedom to frame their own economic policies. They may be high tariff or low tariff countries. They may have tariffs directed to favor production of one sort rather than another—to prevent Australia from becoming a sheep run or to prevent Britain from becoming a country of factory and office workers without agriculture" (p. 228).

Beveridge does not seem optimistic that these conditions will be sufficiently fulfilled to make a world-wide multilateral system practicable. On the other hand, he does not envisage the opposite extreme of bilateralism. His chief question mark is clearly the United States. If the full employment policy of this country is a success, the greatest obstacle would be removed. While a world system would be the best for Britain, Beveridge seems inclined to think that the nearest approach to this ideal would be the formation by full-employment countries of a *bloc* within which multilateral trade would prevail and which would control trade with the willful and perverse world outside.

VII. *Conclusions and Comparisons*

There can be no question that the Report is the most important work on economics published in England since the *General Theory* revo-

lutionized economic thought. It makes full use of the beautifully simple Keynesian apparatus to discuss employment policy in quantitative terms in its sociological and administrative setting. The argument has the great advantage of proceeding in terms of aggregate demand in relation to supply rather than in terms of savings and investment. While the aggregate demand analysis as presented in Chapter III of the *General Theory* is readily understandable, the savings and investment formulation gave rise to an obfuscating stream of argument that was only ended by the war. But there is more to it than alternative forms of presentation. Keynes has admitted in discussions in recent years that at the time of writing the *General Theory* he felt that all possible emphasis should be placed upon encouraging investment, and he moulded his analytic presentation accordingly. The essence of the Beveridge Report, on the other hand, is that all the main components of aggregate expenditures should be ordered in a way that will secure the greatest social utility.

Perhaps the greatest contribution of the book is its exposition of the rôle of government. Too much of our economic thinking in the thirties awarded to the central government the dual function of running its own affairs and tinkering with the capitalistic system in its spare time. Beveridge's thesis, on the other hand is that the government, in running its own affairs, cannot ignore the effects of its actions on the capitalistic system, and must adjust its programs so that government and business jointly achieve full employment. The notion of the doctor prescribing for a sick patient is discarded in favor of the principle of partnership, with the qualification that the government is responsible if things go wrong.

His view of the responsibilities and functions of government leads him to attack the British *White Paper on Employment Policy* as a pusillanimous approach to the problem. He maintains that "It is an anti-cycle policy, not a policy of full employment; the term 'full employment' does not occur in the White Paper, except, somewhat oddly, in two passages in each of which the government is thinking rather of what others ought to do than of what the government ought to do" (p. 272). He charges that the government has little more than public works to offer and that is not enough. I feel that Beveridge is rather harsh on the official program, since, as he admits, it does acknowledge the central point that a policy for maintaining total expenditure is the responsibility of government. Differences in forthrightness between the two proposals may well be explained in terms of the distance between Whitehall and Oxford.

The Beveridge Report is in line with recent economic thought in the

United States both inside and outside the government. The President in formulating a Bill of Economic Rights last year asserted that the people, in effect, had a right to be rid of the Giant Evils. In his state-of-the-union message this year he indicated that their elimination would be an integral part of his post-war employment policy. Economic statisticians have used techniques very similar to those employed by Beveridge in evaluating the post-war employment problem. Outside the government, Professor Hansen has played a notable part in translating economic theory into specific policy proposals. No one can fail to be struck by the parallel between the Murray Bill now before Congress and the institutional proposals of the ~~Beveridge Report~~.

Yet, official statements in this country and elsewhere have not gone as far as Beveridge in defining the responsibility of the state. He comes very close to the notion of a state guarantee of full employment. The Murray Bill on the other hand, as submitted to Congress, does not contain the idea of a guarantee which appeared in earlier drafts, and I surmise that the reason was that the proponents of the bill were not prepared to recommend the degree of government control of economic life that might be necessary to make a guarantee effective. This reluctance is understandable and, I think, wise. Now that the principle of adequate effective demand is so firmly established and widely accepted, it seems to me that economists should devote particular attention to defining the responsibilities of the state.

Whether or not one accepts the full Beveridge prescription, no one can afford to ignore this book. It demonstrates more effectively than anything that has gone before the economic functions of government in the capitalistic state. As I said above, the time has passed when the government's rôle was so small that it could ignore the economic consequences of its acts. It cannot now be neutral. Its policy must be positive. Sir William Beveridge's clarity of thought and lucidity of exposition as well as his courage and imagination should go far in bringing about the general realization that "The time calls for total war against unemployment and other social evils, not for a war with inhibitions" (p. 274).

A CROSS SECTION OF BUSINESS CYCLE DISCUSSION¹

By JACOB MARSCHAK*

"The purpose of the criticism . . . was not so much that the people did not like what [the painter] was doing as that they wanted to know exactly what was in his mind."—A Bell for Adano

The task of Professors Ellis and Haberler, and of the committees over which they presided, was like the task of directors of an art gallery, cramped into a small house and open to a wide public. The collection must be small yet representative, therefore broad. It must be broad but not shallow, that is, every piece must be significant. But, while significant, no piece should puzzle the busy layman who strays into the gallery to rest and enjoy.

The editors could not have accomplished the task more perfectly. As one revives in one's memory a twenty years' crop of blue, green, and red economic periodicals, one finds that no bouquet could be gathered with more taste and sense of proportion—yes, with more love. This impression is strengthened by Professor Somers's excellently classified bibliography of some 800 articles "on business cycle theories." About one in every forty of these articles has been reprinted in the volume under review. I doubt very much that more than one or two substitutions could be suggested to make the selection more weighty or more representative.

The volume is so representative that any reader interested in the progress of economics is rightly tempted to regard it as a sample of the present state of our discipline. What results have been achieved? What tools are being handed to the next generation (for the volume is also intended as a textbook) for further achievement?

* Cowles Commission Papers, New Series, No. 9. The author is professor of economics at the University of Chicago.

¹ *Readings in Business Cycle Theory*, selected by a Committee of the American Economic Association, Volume II of the Blakiston Series of Republished Articles on Economics, with a Preface by Howard S. Ellis, chairman, General Committee on Republications; an Introduction by Gottfried Haberler, chairman, Selection Committee; and a Bibliography of Articles on Business Cycle Theory compiled by Harold M. Somers. (Philadelphia: Blakiston, 1944. Pp. xvi, 494. \$3.50.)

When referred to for the first time, the articles included in the volume will, in general, be quoted only by the author's name and the year of first publication. Page numbers refer to the pages of the volume, not to those of the original publications.

I

I hear that the progress of seismology may be due, in the main, either to better instruments and theories, or to frequent earthquakes. In our case, the earthquakes did most of the job. The 1930's experienced depression. The 1940's experienced full employment. To be sure, the present volume contains little evidence of the direct utilization by economists of those contemporary experiences (an exception is an article by John Williams, 1941; while the factual material used in Alvin Hansen's article, 1939, chosen for the volume happens to refer to population and other trends rather than cycles). Yet it is difficult to imagine that the revolution in our outlook has been due to the tools: they are too blunt! or to the theories: they are too inarticulate! This has happened: the greatest among us, and especially the genius of Keynes, have sensed history and have had the courage and intuition to recast theory accordingly.² The historical facts have been so forceful that no particularly clear and consistent theory and almost no measurements were needed to carry the conviction, or at least the feeling, that old economics could not explain all the facts and ought not to direct all policies.

Rather symptomatically, the field of discussion itself has not been clearly defined. The present volume, for example, purports to deal with "business cycle theory." Yet, as in many university courses of the same name, much more is attempted in its component articles than explaining business fluctuations. There is, of course, no harm in a name, provided distinct matters are named distinctly. Four articles (by Schumpeter, 1935; Kondratieff, 1926; Mitchell, 1923; and Tinbergen, 1940) do attempt to explain, or at least describe, the phenomenon of quasi-periodical changes in economic variables; they form the volume's Part I (Over-All Picture of the Business Cycle and Method of Analysis). Part VI on Special Commodity Cycles contains Mordecai Ezekiel's article, 1938, on the cobweb theorem. Of the remaining sixteen articles, hardly more than four or five deal with the trade cycles proper³, or at least with the process of adjustments (or explosions: so-called cumulative processes) in response to external trends or shocks: in short, with economic dynamics.⁴ Faithfully and fairly reflecting the present state of discussion, the bulk of the volume is devoted, in essence, to the static question: *viz.*, assuming that equilibrium is always reached

² R. L. Klein, *The Keynesian Revolution* (unpublished thesis, Massachusetts Institute of Technology, 1944).

³ Hawtrey, 1926.

⁴ J. M. Clark, 1917, and P. A. Samuelson, 1939, on the acceleration principle; J. M. Clark, 1939, on "compensatory devices"; F. A. Hayek, 1935, on price expectations, monetary disturbances and maladjustments.

somehow, what will it be under given conditions? For example: assuming that the money value of the supply of all goods (identical with the total money income earned in their production) has somehow reached equality with the money value of the demand for all goods, what will be the money value of this supply (another word for money income),⁵ if the wage rate, or the interest rate, or the rate of investment has a given size? This is the kind of discussions inaugurated by Lord Keynes's discoveries, of which J. R. Hicks said: "*The General Theory of Employment* is a useful book. But it is neither the beginning nor the end of economic dynamics."⁶

It is true that the discussion cannot help stumbling upon dynamic relations. For example, "cumulative processes" are described. Or, to take another example, the relationship between income and consumption is ascribed to a "multiplier principle" working over a hypothetical sequence of undefined "periods," during which sequence of periods the variables converge to certain values called equilibrium values. A third example of rudimentary dynamics is the Robertsonian "day," used by many authors of this volume: an undefined period of time introduced to justify giving different names (savings and investment) to two dated values of what is regarded as one and the same variable. To be sure, a truly dynamic theory will not neglect hypotheses which those authors may have in mind: the hypothesis, for example, that a divergence between two certain quantities leads to processes which increase the divergence (as in the case of "cumulative" processes of Wicksell and his school), or decrease it (as in the case of Mr. Kahn's multiplier theory in which the difference between actual employment and the employment compatible with a given total demand gradually fades out); or the hypothesis that a significant time-lag separates consumption decisions

⁵ By "demand" and "supply" we mean the variable quantities demanded or supplied, not the functional relations between each of those variables and other variables such as prices. If the latter terminology were accepted, we should have to replace the simple expressions "demand equals supply," "demand exceeds supply by a given amount," etc., by more cumbersome ones. The relevance of those expressions for dynamic analysis will appear below.

⁶ J. R. Hicks, "Mr. Keynes and the Classics; a Suggested Interpretation," *Econometrica*, Vol. 5, No. 2 (Apr., 1937), pp. 147-59. Among the authors included in the present volume, the distinction is recognized by Ellis, 1940 (p. 406); but also by Lerner, 1939 (p. 167), who says: "Mr. Keynes's greatest fault is perhaps his failure to point out with sufficient emphasis that he is in the main concerned with equilibrium analysis." Haberler, 1936, seems to go even further and to accuse Keynes of feeding us not even with statics but with "barren" identities. This is another misunderstanding, and reveals Keynes's second greatest fault, viz. (to paraphrase Mr. Lerner), "his failure to point out with sufficient emphasis that he is not concerned with mere accounting": some parts of the *General Theory* (although not as often as does the *Treatise* with its "Fundamental Equations"), do merely state identities; but not all relations of Keynes's theories are identities! See the present author's "Identity and Stability in Economics: A Survey," *Econometrica*, Vol. 10, No. 1 (Jan., 1942), pp. 61-74.

from income changes. But, to apply such hypotheses seriously, the concepts and relations must be stated with greater precision than that given them by the original authors and by most of the interpreters. The present ambiguities are well illustrated by Fritz Machlup, 1939, who lucidly enumerates and classifies the various "periods" confused by various authors. The prevailing carelessness in discussing processes suggests that it is the equilibrium values and not the process of reaching them (nor the question of whether they are reached at all) that has interested most economists, at least after Keynes's book of 1936 was read and digested. This is also shown by Somers's bibliography of "business cycle theory": hardly one-sixth of the listed articles deal with the explanation of business fluctuations.⁷

II

Across the distinction between statics and dynamics cuts another one: that between aggregative or "macro"-economics, and the "micro"-economics of a single firm or household. The contributions of the volume are essentially macro-economic. Some contributors (Schumpeter, Mitchell, Williams, Haberler) emphasize the error involved in unduly sweeping aggregation. But this has been so far almost entirely negative criticism. Little has been done to indicate the size of the error under various types of aggregation and, hence, to find the "optimal" extent and method of aggregation; though probably nobody but a purist will deny that *some* aggregation, and hence *some* error, is inevitable because a theory in a million variables can be neither verified nor applied. The relation between "micro"- and "macro"-propositions, *e.g.*, between the individual's and the community's "marginal propensity to consume" (a distinction emphasized by Haberler, p. 198) depends, of course, on the frequency-distributions involved: in this case, on the income-distribution in particular. As another example: Mitchell observes that the changing dispersion of profits has cyclical effects.⁸ This suggests that two frequency-moments of profits (dispersion and average) and not only one (average) must be studied. Such studies bridge the gap between "micro"- and "macro"-economics.

There exists, in fact, an awkward gap: that between the theorems which the undergraduate is taught to derive from the rational behavior of single firms and consumers, either in perfect or imperfect markets,

⁷ These articles are mostly classified under I: Over-all Discussions and Development of Business-Cycle Theory (54 titles); and II: Dynamic and Econometric Business-Cycle Analysis (65 titles). Of the first group, only 14 were published after 1937; of the second, 36! (See below, Section VII of this review.)

⁸ "As prosperity approaches its heights . . . a sharp contrast develops between the business prospects of different enterprises" (p. 56).

and the rather crude and sudden assumptions of the "macro"-discussion on, say, "investments as a whole." How is the formula "investments are high when profits are high" linked with the formula "a firm employs as many machines as would make the value of their marginal product equal to the marginal expense"? (To use the last formula makes investments depend, *inter alia*, on the ratio of machine prices to wage rates.) Or: How is the rise of costs during, but not before, the latter part of the boom (Mitchell, p. 50) connected with the production and cost functions of firms? If such links are not established, the theory of the firm as taught in colleges may degenerate into a "mark of a gentleman's education" like the fencing and archery taught to would-be mandarins. Yet this need not happen: rationality of firms' behavior is probably not a bad first approximation and can be well utilized in realistic analyses of the economy as a whole.

III

To say that the bulk of the volume, or of the discussion it reflects, is on macro-statics does not mean that the book or the discussion is useless. New equilibrium values corresponding to changed conditions, including changed policies, are *sometimes* reached so quickly that useful policy can *sometimes* be performed without paying much attention to the adjustment process. Thus, considerable practical knowledge can be derived from a relatively simple theory.

Unfortunately, the usefulness of macro-statics has been lowered by the crudity of our tools. We are spending too much time on misunderstandings, and we misunderstand each other because we talk carelessly. That our concepts are not unambiguous is well known from the savings-investment controversy (of which the volume contains top specimens in the articles by Ohlin, 1937, Friedrich Lutz, 1938, and Lerner). Had there been more attempts to measure the quantities under discussion economists might have found themselves compelled to more precision. Williams's plea to give a systematic place to "monetary" *versus* "realized" savings—both measurable—is a case in point (although his distinction between "oversaving" and "underinvestment" is again a puzzle). Another case in point is the Robertsonian "day." If it had 24 hours, the difference between the values of any variable taken "yesterday" and "today" would be trifling except on a Black Friday; and it is not too meticulous to ask just how long, approximately, is the lag in question. It is, in fact, the lag of spending habits behind changing incomes that matters: an empirically given amount of time, not an arbitrarily chosen unit of time-measurement.^{8a} As an alternative, the

^{8a} Mr. Robertson would probably agree with the second, but perhaps not the first, part of this sentence. See his *Essays in Monetary Theory* (London, 1940), p. 83.

theorists may have in mind a relation, with or without time-lag, between a variable and the rate of change, per arbitrary unit of time, of another variable. (Examples of such relations will be given in the next section.)

These doubts of a sympathetic reader are given here merely to suggest that some current concepts and assumptions could well bear a fresh and unambiguous restatement.

The volume contains a well-known article by Oscar Lange, 1939. It expounds the relevant behavior relations (economists' "schedules") with a degree of clarity which other static articles of the volume have attained only in regard to certain accounting identities such as are specified in articles by Ohlin, Lerner, and Lutz. By counting relations of both kinds, it can be seen whether one has really explained what determines the variables (if there are as many of them as there are independent relations); or only given a half-theory, like the half-scissors of Marshall's simile (if the variables are more numerous than independent relations); or, thirdly, whether one has perhaps contradicted oneself (if there are more variables than there are independent relations). People afraid of symbols can describe each relation in words like "consumption depends on income," then count all such sentences and thus reach those rather important results. People who do not despise God's gift of equations can easily get even more interesting results. Hicks (in an article already quoted and similar to Lange's in scope) has used such a static system to study the effect of changing interest rate; one could similarly study the complete effect of (much discussed, rarely clarified) cuts of wage rates.⁹

IV

Yet, even the clearest static theories usually have one misty spot. They assume equilibrium between, say, the supply of and demand for a single commodity; or between the value of all goods produced (another word for national income) and the value of all goods demanded. This implies unchanged inventories. This assumption tempts one to use the same symbols for supply and for demand, neglecting to state the assumption itself as a separate relation. Actually the relation is seldom valid. Under the names of inflationary (or deflationary) gaps we have recently familiarized ourselves with aggregate-demand-supply differences of spectacular dimensions. These differences show up in the depletion (or rise) of inventories and later cause a change in prices and in production.

⁹ The technique, known as "differentiating implicit functions" is useful in economics because the functions ("schedules") involved are seldom known except for some general features, like the signs of derivatives. Hicks, *Econometrica*, Vol. 5, p. 157, footnote. See also my article on "Wicksell's Two Interest Rates" (*Social Research*, Vol. 8, No. 4 [Nov., 1941]) for the use of an elementary technique which assumes linear relations.

The existence and the dynamic effects of excess demand or supply were well known to the founders of modern market theory such as Walras and Marshall.¹⁰ To explain the reaching of market equilibrium, they referred to the fact that excess demand (or supply) caused a rise (or fall) in price: a relation between a variable and the rate of change of another variable. Together with the two static relations (demand and supply schedules), this dynamic one constituted the market theory of a single commodity. Three and not two relations are, in fact, necessary to explain the movement (of which the convergence to equilibrium is one possibility) of the three variables, supply, demand, and price. This did not easily fit the two-dimensional blackboards of our classroom and was consequently forgotten. Yet, a market theory consisting of the three propositions "demand depends on price," "supply depends on price," "excess supply makes the price fall," is both clearer and nearer the truth than a market theory in which the third (dynamic) sentence is replaced, without further explanation, by "demand equals supply." Strictly, the latter sentence is only correct if the price falls and the consequent adjustment of demand and supply (hence, of inventories) is infinitely rapid: a special, limiting case. The suppressed and replaced sentence helps to describe just this process of adjustment.

National money income which, for the theory of a single commodity, is taken as an exogenous cause of "shifts of demand schedule," becomes an endogenous variable (*i.e.*, one to be explained) in problems of employment of national resources. National money income is the sum of all money incomes earned, and is therefore another word for the money value of total supply. Again, the equation "total supply = total demand" is only approximately true; quite unlike the equation "total supply = total income," which is an accounting identity. The total demand (for consumption goods *plus* investment goods) is therefore not identically equal to total income. To be sure, no harm arises from thinking otherwise, as long as equilibrium is assumed to have been reached somehow: no different consequences arise from the proposition "supply is assumed to equal demand" than from the proposition "supply is another word for demand." But the confusion shows up as soon as one approaches the facts, the changing inventories, changing prices.¹¹ One has then to discard the "supply = demand" assumption, and to substitute for it, say, "supply = demand *plus* a random quan-

¹⁰ In his *Principles*, though not in his *Pure Theory of Foreign Trade*, Marshall preferred to study the (dynamic) effects of the difference between demand price and supply price. See P. A. Samuelson, "The Stability of Equilibrium: Comparative Statics and Dynamics," *Econometrica*, Vol. 9, No. 2 (Apr., 1941), especially pp. 102-05.

¹¹ Macro-theories of unemployed resources often choose to neglect prices and to discuss the deflationary gap in terms of deflation of physical supply only. We have assumed this simplistic attitude in the rest of the paragraph merely for brevity's sake.

tity," the latter quantity being an accidental (and exogenous) failure of producers to adjust inventories; or going further, one may substitute for it a dynamic relation such as "excess supply slows down supply" (possibly including again, in addition, a random quantity). The savings-investment controversy would not have been so tiresome and inconclusive if, at the time of the controversy, the contributors to the volume under review (this includes Messrs. Lutz, Lerner and Lange) had made clear that the proposition "money value of aggregate demand = money value of aggregate supply," far from being an accounting identity, was not even true, except as a limiting case—*viz.*, the case of infinitely quick adjustments—of some more general dynamic statement. Professor Samuelson's dynamic restatement, on somewhat similar lines,¹² of the Keynes-Hicks-Lange system might well have deserved inclusion in the volume and would supplement Ezekiel's discussion of the cobweb, a form of dynamics of single commodity markets. By facing dynamic facts, full understanding is reached of the nature of the static model.

V

In the volume under review, two or three simplified dynamic models (involving an equal number of relations and endogenous variables) and half-models (*e.g.*, a single relation in two or more endogenous variables) are discussed articulately: such are the works of Ezekiel, Samuelson and J. M. Clark. They do not claim to explain the business cycle. Authors who have tried to do so faced a more difficult problem, yet applied more deficient tools. The criticism which Tinbergen in his reprinted article makes of most business-cycle theories applies to his neighbors in the volume: Schumpeter, Mitchell, Hawtrey. Are they not, in Tinbergen's words, "telling stories, not making theory"? The relations they have in mind may be sufficient to explain the cycles, but this is difficult to check because the system of relations is not clearly stated. They may be too numerous, or there may be not enough of them. Even if there are just as many relations as variables, the relations may or may not be able to explain turning points, *i.e.*, periodic movements instead of non-periodical "cumulative processes" or of non-periodical convergence toward equilibrium. The method chosen is to tell how one situation breeds another, and many striking facts are observed and plausibly interpreted from step to step. But the reader, aware of the many simultaneous, entangled threads of economic causation, is left to puzzle why, at any juncture of the story, one particular thread is chosen and not any of the others. One is merely made to feel, with Tony Lumpkins's genteel but vague friend, that there is some "concatenation accordingly."

¹² Samuelson, *Econometrica*, Vol. 9, especially pp. 113 seq.

Tinbergen's methodological article does therefore fulfill an important function in the volume. Unfortunately, the article itself does not illustrate Tinbergen's economics. Specific economic relations had to be treated in that article cursorily and formally. It would be useful to acquaint students with Tinbergen's actual hypotheses, and to provoke criticisms. For example, they might ask (as we did above, in Section II) for a fuller use of the results provided by the theory of single firms; or they might suggest getting at the economic causation of some of the trends which Tinbergen imposes from outside—*e.g.*, reduce some trends to the fact that resources or markets approach exhaustion.

VI

As mentioned earlier, empirical tests or measurements appear in the volume rather casually. Kondratieff's statistical-historical article on long waves is an exception. This is an empirical discovery, with little pretense of a theory. The author forcefully rejects exogenous explanations (inventions, wars, new markets, increase of gold stocks are, to him, themselves caused by the economic conditions); but he does not try to give an endogenous one.

The great merit of Tinbergen's approach is, of course, the knitting together of theory and measurements. His tests by fact are indeed necessary since the number of possible, logically watertight theories is infinite. This is not to say that the tests are sufficient: as in all science, we can only narrow down the set of possible hypotheses by rejecting some of them; we can never be sure that we have hit the uniquely true one. But is it not important enough that, for example, Tinbergen (p. 81) has shown the "acceleration principle," so attractive to theorists, to be of doubtful account in actual fact?

Tinbergen estimates, separately for each economic relation, the size of parameters such as "marginal propensities," price-elasticities of demand, time-lags, etc. The size of those parameters makes the system periodic (with wave frequency of plausible size), or otherwise. With the exception of time-lags, the parameters are estimated by the partial regression coefficients (familiar to statistical workers) of the single relations. The student will, however, be misled by Tinbergen's statement, now five years old, that "Various pitfalls in this field have recently been discussed . . . fairly completely . . . it is now more useful to apply the method to concrete cases" (p. 81). Recent researches have shown that estimates of parameters, obtained by separately fitting each of the theoretical equations to the data, are, in general, biased estimates if the data are of non-experimental origin. This is the economist's case. His data are produced by the interplay of simultaneously valid relations. He does not have any controlled variables. Accordingly, other

more general and more suitable methods are being developed;¹³ though in certain cases, especially where lags and exogenous variables are involved, the old method may also lead to correct results.

VII

Whether macro- or micro-economics; statics or dynamics; purely hypothetical or empirically tested, no economic theory—however interesting or true—is really useful if it does not help policy. To nip depressions in the bud, is it necessary to know why they arise? We know that a given total demand would guarantee full employment of resources—if not immediately, then after some reasonable time needed for adjustments. Let us, then, keep total demand at the desired level, correcting it upward or downward whenever it slips down or up. This is the policy of the steering wheel.¹⁴ It dispenses with both theories and measurements of business cycles. All that is necessary is to watch current (not past) facts pertinent to employment, and to act quickly. It is not necessary to know the causes of the trouble or of its alleged periodicity. If the room is too hot we open the window though the trouble may have been caused by the radiator, not the window; nor need we ask ourselves whether the room warms up and cools off periodically, and why. To the practical man, this short-cut is precious. It is interesting to note¹⁵ how, since the publication of the *General Theory of Employment* by a statesman-economist, the output of articles on business cycles proper has slowed down. Except for the finishing of a few monuments started before the day of revelation, and excepting the work of harmless econometric drudges, victims of despised “scientism,” the professional interest shifted to macro-statics!

It is not too conceited to call this shift a boon to mankind, involving as it did a change in the attitude of administrators and, though much slower, a change in public opinion. Certain tenets of fiscal and monetary policy, rational in their time but mere magic taboos under changed circumstances, are giving place to new rules, appropriate to higher productivity levels. There is disagreement about details only: about the way to circumvent this or that prejudice, or the feasibility of dispelling it; about the distribution of benefits of the policy between the various classes; and about the probability that the steering wheel will have to

¹³ See Trygve Haavelmo, “The Statistical Implications of a System of Simultaneous Equations,” *Econometrica*, Vol. 11, No. 1 (Jan., 1943). See also the introduction to J. Marschak and W. H. Andrews, “Random Simultaneous Equations and the Theory of Production,” *Econometrica*, Vol. 12, Nos. 3 and 4 (July-Oct., 1944), pp. 143-205; and forthcoming articles by Tjalling Koopmans.

¹⁴ A. P. Lerner, “Economics of the Steering Wheel,” *University of Kansas City Bulletin*, 1941.

¹⁵ See above footnote 7 for some figures.

be resorted to more often or less often. Robertson's article, 1940, classifies the tastes or fears at the base of those disagreements; articles of Williams, 1941, and of J. M. Clark, 1939, are examples of understanding and weighing the difficulties. The principle itself is, if possible, even more generally accepted now than it was five years ago: witness the current discussion of post-war employment.

We do not think, however, that the general acceptance of the (static) principle of effective demand, and of the steering wheel policies implied in it, makes business cycles theories, economic dynamics useless. Cars must not only be steered, but also repaired and built. A car must not be built to swing wildly and to require exasperated steering at every turn or slope of the road. A system able to absorb or "dampen" external impacts is more "stable" than one whose "damping-ratio" is small (Tinbergen, p. 79). That ratio is a well-defined quantity. (It is, roughly speaking, another way of measuring the speed with which equilibrium is approached.) It depends, of course, on the structural characteristics of the system, *i.e.*, on its parameters such as the various elasticities, lags, reaction velocities, etc. Would a lowering of the elasticity of labor supply (*i.e.*, a higher flexibility of wages) make the system more stable or less stable, and by how much? What effects on the stability of the system have the current regulations on bank reserves? on dealing in securities? on governmental storage of agricultural commodities? These are problems in comparative dynamics, just as the effect of a changed consumption propensity, or of changed government spending, on the equilibrium income, are problems in comparative statics. The latter studies the factors affecting the equilibrium values; the former reveals the factors affecting the speed with which equilibrium values are reached. Both kinds of factors can be instruments of a policy that aims at high and stable income for the nation.

To answer the problems of dynamics, one has to go into the past and learn from previous fluctuations: one has to have business-cycle theories. In addition, one has to study the past even if one merely wants to "steer the wheel": to avoid a drunken course of the car, one has to estimate in advance the presumable effect of various external, or "spontaneous" changes in the structure of production or demand (Neisser, 1934), or the effect of, say, profits on investments. But it is erroneous to think that these relations can be measured in isolation (see end of Section VI). Therefore, even if applied statics should be the only aim, the necessary empirical study of economic relations would imply the study of the dynamic system of the economy as a whole. If, however, in addition to steering the wheel of the system we want the system to have a stable structure, we need the knowledge of what makes systems

stable or sharply fluctuating. Hence, in both cases, theory of business cycles is needed.

VIII

Economic theories are made to explain what determines quantities such as prices, or employment, or interest rates at any given time. Any economic theory therefore involves relations between quantities. If economic policy applies theory it uses these relations: it tries to give some of the quantities, such as the national income, desired value by influencing other, more directly controllable quantities, such as tax rates. A theory involving false relationships cannot help, and may harm, policy. A theory that consists of vaguely stated relationships can help only if the relationships meant were true and, by an accident, happened to be understood as they were meant; or if the relationships meant were false but, by an accident, have been misunderstood in an appropriate way. More useful than to rely on such accidents is to have theories as true as possible, and to formulate them clearly.

To be true, a theory must be logically, or internally, consistent and must not contradict facts. (Although necessary, these conditions are of course not sufficient.) A theory about the determination of quantities can in general be expressed by a system of relations such as equations or inequalities, and the implications of such a system can be studied by rules of mathematics. If, in addition to being internally consistent, a theory about quantities wishes to claim consistency with facts, measurements must be made. In economics, measurements must in general be statistical estimates because numerous factors exist that cannot and need not be identified separately and that combine themselves into "random" influences. Economic propositions (except for definitions or identities) are in general statistical, *i.e.*, they state that certain occurrences are more probable than others. An economic theory is in agreement with facts if it does not assign a high probability to occurrences which, in reality, prove to happen but rarely.¹⁶

Ill-defined concepts, relations, and systems of relations' (called theories) can be more easily extirpated or improved, and the logical consistency and empirical reliability of propositions about quantities are more easily tested if mathematical tools are used. Occidental humanity has developed mathematics for those very purposes.

Economics is far flung and borders on law and ethics, psychology and history, on human biology and on technology. To reason by methods other than mathematical ones and to ascertain facts without sta-

¹⁶ Trygve Haavelmo, "The Probability Approach in Econometrics," *Econometrica*, Vol. 12 (1944), suppl.; also issued as Cowles Commission Paper, New Series, No. 4.

tistics is legitimate or necessary in some of those fields or nearer their borders. Economic theory is not the only and perhaps not the most useful part of economics. Propositions of legal economics about the existing institutions, and statements of sociology or political science as to how institutions change, may be more reliable, and hence more useful, than the essentially quantitative propositions of economic theory and economic statistics about man's probable behavior in matters of supply and demand of goods and services. Nevertheless, propositions of the latter kind have been shown to possess some moderate degree of reliability, and this is why any sort of economic theory can exist at all. Why, then, neglect the tools appropriate to quantitative relations and thus diminish whatever usefulness economic theory may have? There is nothing inhuman about stating that, in given conditions, men behave in moderately persistent ways; there is nothing frivolous in counting men and measuring their ways. True, Providence did punish King David for taking a census: but that was a long time ago.

A giant can do with a hammer the work of a steamhammer. Ricardo and Keynes, using numerical examples and the short-cuts of powerful intuition, have achieved great things; but I doubt that a third name (Menger? Marx?) could be added to these. Marshall probably arrived at, and most certainly tested, his conclusions by mathematics. By hiding his tools in appendices, Marshall bowed to an old belief, a self-deception, I think: that in economics clear reasoning can be replaced by delightfully Ciceronian discourse and that the resulting agreement of minds is due to conviction rather than respect. Robertson's (1938, pp. 315, 312) purpose is "to give an account of events in language as nearly as possible approaching that of *Reading without Tears*." . . . "Latterly several helpful attempts have been made to express precisely in mathematical terms some of the points at issue. Has a stage now been reached when it is possible to sum the whole position up broadly in more ordinary language, indicating in a general way what departments of the whole tangled controversy seem to be primarily concerned with words and methods, and what with more substantial issues? I do not know, but I should like . . . to make the attempt."

As one who has perused *Readings in Business Cycle Theory* I must confess: this was not *reading without tears*. It was strenuous reading. If we study economics to remember the names of authors, their characteristic terms and phrases, conflicts and misunderstandings, and perhaps the social and psychological setting of those conflicts, a volume like the present one is both pleasant and useful: an admirable art gallery. But if economics is not about economists and their words and feelings but about how to explain or influence facts, then to extract economic knowledge from the articles of the volume is a most difficult

task. A giant's disciple says (Lerner, p. 164): "Mr. Keynes' presentation [of the multiplier concept] cannot escape the suspicion of the lack of clarity." In the course of our present article we had cause to complain similarly of other authors. To read about triangles yet shed no tears, give us Euclid, not Cicero.

Precise language would make reading and writing slower, no doubt. Yet in the long run time would be saved. Do we not (and our students) read and write too hastily, anyhow? Do we not, just because of that haste, read and write too much? Economists praise the fruits of patience: the bee in the seal of the Royal Economic Society is there to buzz the glory of "roundabout processes." Even non-economists know that to get along in England or in the United States it pays to learn some modest English. Our students begin to realize that, to master quantitative relationships that make up economic theory, it pays to learn some modest mathematics. The econometricians may not have been such harmless drudges after all.

The *Readings* reflect excellently the discussion of the last twenty years. The discussion was moved by momentous events and has achieved important results. The results were obtained by intuition rather than clear thought. The problems still unsolved are naturally the more complicated ones. Nevertheless, no better tools may perhaps be needed for their solution if—but only if!—the coming generation again produces a genius of intuition. But what if it does not?

COMMUNICATIONS

Three Methods of Expansion through Fiscal Policy

Fiscal policy has increasingly, in recent years, become the central topic whenever a full-employment program is under discussion. This, everyone admits, does not mean that wage, price and other policies can be neglected if we expect to achieve a well functioning economy. It does mean, however, that there is growing agreement that far more emphasis must be placed on fiscal policy than has been the case in the past.

But fiscal policy, as one important weapon in the full-employment arsenal, can be pursued in various ways. I have frequently pointed out that government outlays may be income generating (a) when financed by progressive income taxes,¹ and (b) when loan-financed. I have also argued that even when expenditures are financed by regressive taxes they may be income generating.² Recently this analysis has been elaborated by several writers.³

To illustrate the effect of different combinations of public expenditures, taxation and borrowing upon the process of income generation, I have for some time in my classes used illustrative diagrams. The description of these diagrams, which may be of some interest to others as a pedagogical device, is presented in this note.

The models which follow are highly simplified. They are presented purely for purposes of analyzing broad tendencies resulting from different lines of action. It must not be assumed, however, that I therefore take account only of aggregates and give no consideration, for example, to the effect of different *kinds* of spending and other equally relevant matters. I am here contrasting general policies, but am nevertheless quite aware that much more needs to be said before one could decide upon the validity of any one specific program designed to bring about expansion.

The net national product (in this note called national income) of goods and services (gross national product minus capital depreciation, etc.) equals (1) private consumption expenditures; (2) tax-financed public expenditures and (3) net savings of corporations and individuals. Figure 1 presents a model showing the schedule of total private consumption and total private savings at different income levels together with the tax-financed public expenditures. Let us suppose that we start with an income of OL . Given the tax structure

¹ *Fiscal Policy and Business Cycles* (1941), pp. 182-83.

² Hansen and Perloff, *State and Local Finance in the National Economy* (1944), pp. 244-46.

³ See especially Sir William Beveridge, *Full Employment in a Free Society* (1945); and Henry C. Wallich, "Income-Generating Effects of a Balanced Budget," *Quart. Jour. Econ.*, Vol. LIX, No. 1 (Nov., 1944), pp. 78-91.

and the consumption and savings functions,⁴ the level of income is determined by the volume of net investment. Accordingly a net income level of OL would be reached if the volume of net investment were only EF . Suppose now private investment becomes AV , and in addition loan-financed government expenditures equal to VB are undertaken. Then total investment rises to AB and income (via the operation of the multiplier) increases to OK . As total investment rises from EF to AB , consumption is increased; and moreover (under a progressive tax structure) as income rises, tax-financed outlays

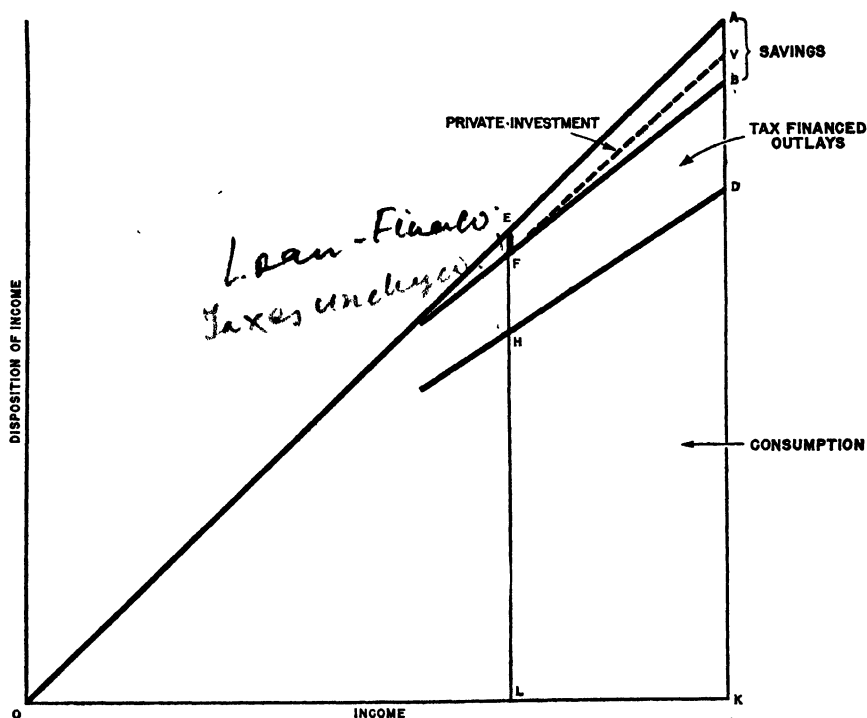


FIG. 1

could rise from FH to BD . This is, broadly conceived, the path of expansion when loan-financed outlays are relied upon to bring about an increase in income and employment.

In Figure 2, it is assumed (starting again from an income level measured by OL) that expansion is brought about not by an increase in loan expenditures, but by a very large increase in tax-financed expenditures.⁵ This means

⁴ By a given consumption function I mean a schedule showing the amounts of total private consumption at different levels of national income; and similarly for the savings function.

⁵ The increased taxes cannot be collected, however, until national income has risen. Thus initially the increased expenditures must be loan-financed. See note 6 below.

that tax rates are raised sharply. In Figure 1 the volume of public outlays that could be tax-financed increased somewhat, even though tax rates were left unchanged. Such increase was due exclusively to the fact that, with constant tax rates, revenues would increase some as income rose. In Figure 2, however, it is assumed that outlays are raised substantially, while at the same time tax rates are raised sufficiently to produce tax revenues adequate to balance the new enlarged budget at the income level OK .

The large increase in tax rates can not fail to change the structure of the consumption and savings functions. The increase in tax rates induces a decline in consumption at the income level OK as compared with the consumption in

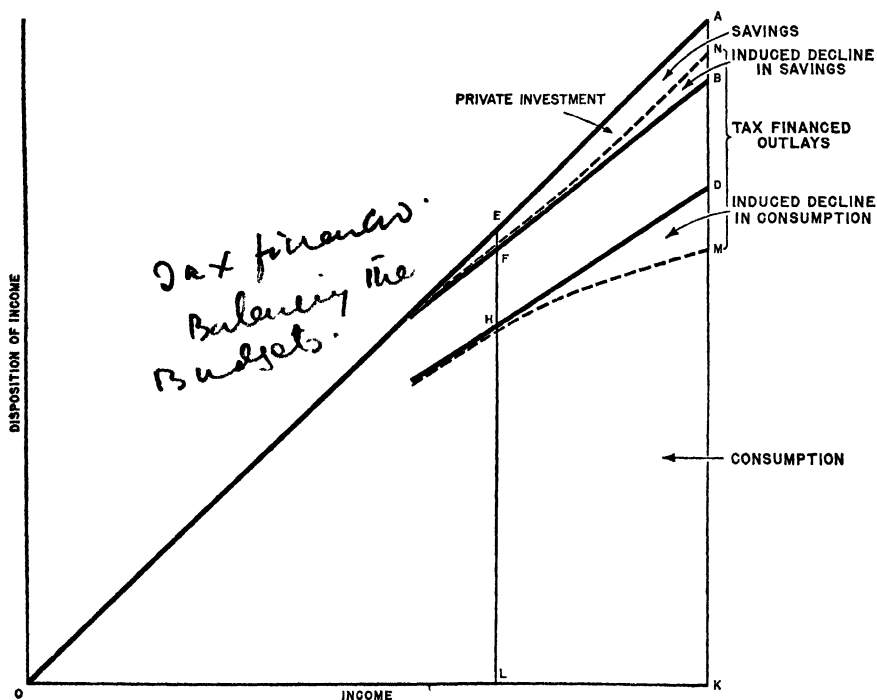


FIG. 2

Figure 1 where the tax rates were lower. If the change in the tax structure is such that funds are abstracted from the general mass of consumers, the induced decline in consumption will be very great. If, however, the change in the tax structure hits mainly the upper income classes, then it is the savings function which is sharply distorted as compared with that of Figure 1, while the consumption function will be left relatively undisturbed. In this case the induced decline in savings would be very great, while the induced decline in consumption would be slight. In Figure 2 it is assumed that the change in the tax structure cuts both ways, reducing both savings and consumption as income

is pushed up by larger public outlays. Thus at full employment, consumption is KM , savings NA , tax-financed public outlays MN .

In Figure 1, it was assumed that the expansion was brought about by increased public outlays financed by loans. The savings and consumption functions were therefore left undisturbed (there being no changes in tax rates). Thus both consumption and savings rose rapidly as income increased. In Figure 2, however, the increased tax rates necessary to balance the enlarged government budget sharply change both the consumption and savings functions.

Figure 3 illustrates a third case. Again starting from income equal to OL when net investment is EF , expansion is achieved in this case by a drastic reduction in taxation, public outlays remaining the same as before.

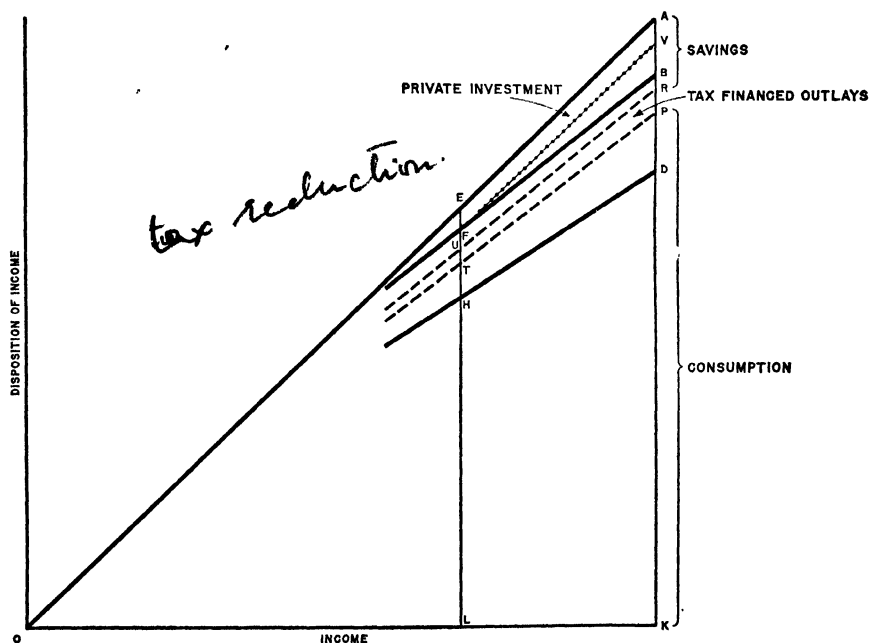


FIG. 3

The assumed drastic cut in tax rates releases funds for consumption and savings. Private consumption expenditures are increased. Moreover, a large government deficit is created which is financed at first partly from enlarged savings and partly from new funds or the use of idle funds. Total expenditures, public and private, thus increase and income rises to OK . At the income level OK private consumption is KP . The savings (AR) are offset by private investment (AV) and the government deficit. The latter equals VR . A small part of government outlays (RP) is assumed to be still tax-financed. Consumption and savings, by reason of the tax reduction, are much larger than in Figure 1.

The savings and consumption functions have been shifted substantially away from their original patterns, as indicated by the dotted lines.

In Figure 2 the government budget is balanced (once equilibrium is reached) at all income levels.⁶ Income is pushed higher by increased public outlays. As income rises consumption (according to the chart) will rise some, but not as rapidly as in Figure 1. Savings also will rise slightly, but far less than in Figure 1. Thus, at income *OK*, savings are far below that of the corresponding income level in Figure 1. A slight rise in private investment, induced perhaps by the rise in income, is now adequate to offset the savings which the public wishes to make (in view of the new tax structure) at income *OK*.

The more the new tax structure checks the rise in consumption as income is pushed up, the larger is the volume of public expenditures needed to produce full employment. On the other hand, the more the new tax structure checks the increase in savings, as income rises, the less the volume of public outlays needed to produce full employment.⁷

In Figure 3, the more the tax reduction raises the consumption function, the sooner is a full-employment income reached. The more the reduced taxes add to the flow of savings, the smaller the effect of tax reduction on expansion, unless indeed induced new investment is thereby stimulated. If the reduced taxes all run into higher savings, no expansion could follow except in so far as the tax reduction might also increase investment.

Low taxes (as in Figure 3) give maximum encouragement to consumption, the more so if it is the regressive taxes that are reduced. And while tax reduction (especially if progressive taxes are cut) will increase savings, the new savings will not "run to waste" since they will be used to finance the government deficit.

Large public expenditures coupled with high taxes (Figure 2) would do as well as loan-financed expenditures (Figure 1) in the stimulation of employment and the enlargement of the income flow if the new taxes did not curtail consumption. But this is scarcely possible. Loan-financed expenditures are accordingly more effective since they do not infringe on consumption.

The tax reduction method of expansion (Figure 3) involves the lowest volume of public outlays. It is therefore to be preferred by those who fear most an undue expansion of public functions. On the other hand, it involves the largest deficit. The tax-financing method of expansion (Figure 2) involves the largest public outlays but no deficit. The loan-financing method (Figure

⁶ As income rises, *MV* (*V* meaning income velocity) must rise. Thus there will be an increase either in *M* or in *V*. Under certain circumstances, in order to provide adequate liquidity, to satisfy both the transactions motive and the speculative motive, *M* should be increased. Thus initially, as outlays are increased, credit expansion (borrowing from banks) is indicated. If there is ample liquidity so that there is no need to increase *M*, idle funds could be tapped (*V* would rise) to finance the initial outlay. Thereafter the enlarged government budget would be financed from taxes. (See *State and Local Finance in the National Economy*, p. 245.)

⁷ The effect of the new taxes upon investment must of course also be taken into account. Against this unfavorable effect one must set the stimulation to investment springing from the rise in income.

1) lies in between and avoids both the extremes of excessively large expenditures and excessive deficits.

ALVIN H. HANSEN*

* The author is professor of economics at Harvard University.

Alternative Budget Policies for Full Employment

During the thirties fiscal theorists were interested primarily in the effects of deficit spending, that is, changes in over-all income resulting from an *increase in public expenditures* above the level of tax yields. Recently, attention has been drawn to an alternative approach to deficit finance under which the deficit is brought about by a *reduction of tax yields* below the level of expenditures. Both techniques may be considered at the same time and be combined with other approaches not directly concerned with the size of the deficit. The level of private consumption and investment expenditures may also be affected by adjusting the *kind* of taxes and public expenditures included in the budget totals, and under certain conditions public expenditures may provide for a net addition to national income, even though there is no deficit and the level of private expenditures does not increase.

Adjusting the level of expenditures relative to tax yields is thus only one among several approaches. If fiscal policy is to provide for a given dollar addition to the national income, this may be accomplished through a number of alternative budgets, providing for varying tax, expenditure and deficit totals and for varying revenue and expenditure structures.¹

I

The interrelationships between the major variables of budget policy may be presented in a simplified form, somewhat similar in nature to the statement of monetary variables in the equation of exchange. Suppose that with a given federal budget over-all income falls substantially short of the potential output at full employment. What adjustment in the budget can be made to raise income to the full employment level? Any adjustment in the budget will do which meets the condition

$$(1) \quad G = E_1 + k [\alpha (E_1 + E_2) - \beta T] + kI$$

where

G is the required increase in income

E_1 is the *additional* public expenditure on currently produced goods and services

¹ See for instance Alvin Hansen, *Fiscal Policy and Business Cycles* (Norton, New York, 1941), pp. 182-83, and Hansen and Perloff, *State and Local Finance* (Norton & Co., New York, 1944), pp. 244-46; A. P. Lerner, "Functional Finance," *Social Research*, Vol. 10, No. 1 (Feb., 1943). H. C. Wallich, "Income Generating Effects of a Balanced Budget," *Quart. Jour. Econ.*, Vol. LIX, No. 1 (Nov., 1944); N. Kaldor, "Quantitative Aspects of the Full Employment Problem in Britain," Appendix C in *Full Employment in a Free Society*, by Sir William Beveridge (London, Allen and Unwin, 1944); and B. Ruml, *National Fiscal Policy and the Two Super Budgets* (University of Virginia, Charlottesville, 1941).

E_2 is the *additional* public transfer expenditure

T is the *change* in tax revenue (+ or -)

α is the marginal propensity to consume (out of income after tax) of the recipients of additional government expenditures

β is the marginal propensity to consume (out of income after tax) of the taxpayers meeting the changed tax bill

I is the induced change in private investment expenditures (+ or -)

k is the multiplier applicable to an extra dollar of private expenditures on consumption or investment, based upon the community's marginal propensity to consume out of income after tax and independent of a given tax rate

Expression (1) shows that, for the budget adjustment to be successful, the required increase in income must be matched by the proposed increase in public expenditures on currently produced goods and services plus the resulting net increase in private consumption and investment expenditures. These variables will be examined briefly.

The *required increase in income*, or G , is the gap between the income which is realized "in absence" of an active fiscal policy—defined, for purposes of this discussion, as a situation where the budget is balanced at a minimum level—and the income that can be reached at full employment. For the gap to be filled without a change in public expenditures or tax yields (allowing, however, for reduced tax rates), there would have to be an autonomous increase in private investment or consumption by an amount equal to G/k .

The *increase in public expenditures on currently produced goods and services* or E_1 is the first leverage factor. E_1 is here written as a separate term, distinct from E_2 , because real expenditures on currently produced goods and services are in themselves a direct addition to national income. Transfer expenditures make no such direct addition; they enter into national income only when respent by private income recipients.²

An increase in public expenditures on currently produced goods and services will thus result in a *net* addition to over-all income unless offset by reduced private expenditures. Suppose the government spends \$100,000 on a soil conservation project and increases taxes to cover the cost. The national income will then be increased by public expenditures of \$100,000. Now suppose that those paying \$100,000 of additional taxes reduce their consumption expenditures by \$50,000 while those receiving \$100,000 of additional income payments from the government increase theirs by \$50,000. As a result, the level of private consumption expenditures is unchanged. Assuming private investment to be unchanged, the \$100,000 worth of soil conservation is a net addition to national income.³ For private consumption expenditures to

² Pigou defines as "exhaustive" or real expenditures those expenditure items which involve surrender of real resources and are made to secure the production of goods and services. Placed on a current basis, this definition meets our requirements although there are numerous border-line cases. See A. Pigou, *A Study in Public Finance* (Macmillan, 1929), p. 19.

³ This, of course, involves the assumption that public projects, valued at cost, can be added on to privately produced goods, valued at market price. For present purposes this assumption is accepted.

remain unchanged, in this illustration, there must be no lag between the public outlay on the conservation project, the reduction in the taxpayer's consumption expenditures and the increase in consumption expenditures of the project workers; that is to say, there must be an increase in income velocity. If there is a lag in the public disbursement of the additional tax yield or in the respending of the additional income received by the project workers, the direct contribution of the real public expenditure may be offset in part or fully by reduced private expenditures, measured in the second term of expression (1). If such lags apply, this result may be avoided if the initial public outlay is financed out of credit or taxes drawn from idle balances. For purposes of present analysis, we assume that no lag exists.⁴

The *increase in private consumption expenditures*, resulting from adjustments in public expenditures and taxes is the second leverage factor. The total increase is equal to k times the initial net increase. The initial net increase, in turn, equals the initial increase in expenditures by those receiving additional income from the government minus (or plus) the initial decrease (or increase) in expenditures of those paying additional (or reduced) taxes. The initial increase in expenditures by those receiving additional government payments is defined as $(E_1 + E_2)$, i.e., the marginal propensity to consume (α) of those receiving the additional payments, times the total increase in public expenditures, including transfer as well as real expenditures. The initial decrease (increase) in expenditures of taxpayers is defined as $\pm\beta T$, i.e., the marginal propensity to consume (β) of those who meet an increased (decreased) tax bill, times the *change in tax yield*, $\pm T$.

It is a major point of this analysis that E_1 , the initial public expenditure on current produced goods and services, is singled out as the first term, while the multiplicand to which k is applied is defined to include the initial increase in *private* expenditures only.⁵ This permits us to differentiate between the marginal propensity to consume of income recipients in the economy at large, which underlies k , and the marginal propensity to consume of those who receive additional income from the government (α), or of those who meet a changed tax bill (β).⁶ This is of considerable advantage. During a depression period, for instance, fiscal planning calls for taxes which are drawn from taxpayers whose marginal propensity to consume is low relative to that of income recipients as a whole, and for expenditures going to recipients whose propensity to consume is high relative to that of the community as a whole. The opposite tends to hold during a period of inflation. If the specific propensities of taxpayers and expenditure recipients are not allowed for, i.e.,

⁴ Cf. H. C. Wallich, *Quart. Jour. Econ.*, Vol. LIX, No. 1, p. 81.

⁵ No double counting is involved by including E_1 as a separate first term, because the multiplicand to which k is applied in the second term includes only such fraction (α) of $(E_1 + E_2)$ as is initially respent.

Alternatively, E_1 might be omitted as a separate term, in which case k would apply to $(E_1 + E_2)$ as a whole and E_2 would be deducted in the first round.

⁶ As pointed out below, α and β also differ from the community's propensity to consume upon which k depends in that they refer to consumption of particular groups, whereas the latter refers to consumption of the community at large.

the marginal propensity to consume of all groups is assumed to be the same, the number of variables is reduced.⁷ However, this simplified formulation of the problem is not very useful for our purpose since it implies the assumption that resulting changes in consumption expenditures are independent of the *type* of public expenditure or tax adjustment. Only changes in revenue or expenditure totals are accounted for and thereby an important part of the problem is assumed away.⁸

The marginal propensities to consume of those receiving additional income from the government (α) or of those meeting a changed tax bill (β) are weighted averages. They greatly depend upon the kind of policy by which adjustments in the expenditure or yield levels are brought about. The α applicable to transfer expenditures may exceed or fall short of the α for real expenditures. Thus, if the additional expenditures are relief payments, α may be close to one; if they are for debt redemption, α may be close to zero. If the expenditures qualify for inclusion in E_1 , it is likely that α will fall somewhere in between these extremes. Similarly, if the change in tax yield is in sales tax yield, β may be close to one; if the estate tax yield is involved, β may be close to zero. The β applicable to the corporation tax depends upon its incidence. To the extent that the tax is reflected in higher prices or lower wages, β will be relatively high; to the extent that the tax is reflected in reduced dividends, β will be less, and where the tax is reflected in the retention of less earnings, β will be equal to zero. By defining the revenue item as $\pm\beta T$, the implicit assumption is made that the β applicable to borrowing is equal to zero. This assumption is not entirely realistic, even for the case of depression borrowing, but is made to simplify the problem.

The *change in tax yield*, or $\pm T$, includes all changes in yield, whether due to changes in the tax base (brought about by increased consumption, investment and public expenditures) or to changes in tax rates. When government expenditures ($E_1 + E_2$) increase and the tax rate remains unchanged, T will be positive since a part of the additional income received from the government will be returned to the Treasury in taxes. Having defined T in this way, α is defined as the marginal propensity to consume out of income *after* tax but

⁷ We have in this case $\alpha = \beta = \frac{\gamma}{1-t}$ where γ is the community's marginal propensity

to consume before tax and t is the marginal tax rate. In this case $k = \frac{1}{1-\alpha(1-t)}$ and expression (1) reduces to:

$$G = \frac{E_1 + \alpha(E_2 + E_1 t - T) + I}{1 - \alpha(1-t)}$$

For a discussion of the relationship between multiplier and tax rate, see Paul A. Samuelson, "Fiscal Policy and Income Determination," *Quart. Jour. Econ.*, Vol. LXI, No. 4 (Aug., 1942), p. 584.

⁸ Ideally, we should apply different *multipliers* to $E_1 + E_2$ and T respectively, instead of assuming different marginal propensities to consume in the first round of private spending, while applying the general multiplier thereafter. But this is impracticable. Within the limitations of any multiplier analysis based upon the marginal propensity to consume of the community as a whole, the formula should give a reasonably good approximation.

is applied to $(E_1 + E_2)$, the full initial addition to private income, *before* allowing for additional taxes. In other words, with respect to the term $\alpha (E_1 + E_2)$ it is assumed that no additional taxes are paid by the recipients of the additional government payments. The fact that additional taxes are paid by this group and that the net increase in their expenditures falls short of $\alpha (E_1 + E_2)$ is allowed for in deducting βT , where T covers all additional tax yield.

Changes in tax yield are here considered the primary planning factor, the necessary changes in tax rates being determined by the changes in yield and income. The opposite approach could be taken but would be less useful.⁹ As a matter of fiscal planning, yield adjustments are the primary objective and changes in tax rates the means to accomplish them. In planning rate adjustments to bring about the desired change in yield, secondary changes in yield due to changes in the level of income and hence in the tax base must not be neglected. As a matter of legislation, action is taken in terms of rate adjustment but the final purpose is adjustment of tax yields.

The change in yield, or T , may be positive or negative, depending on whether the yield provided for in the adjusted budget falls above or below the initially assumed level. T is equal to zero if the yield level is unchanged. It should be noted that $\pm T$ refers to increments or decrements in tax yield only, so that βT does not allow for changes in private expenditures brought about by changing the sources from which the initially assumed amount of tax yield is drawn, as, for instance, by changing from excise to income taxes.¹⁰

The *multiplier* k is here applied to initial changes in private expenditures on consumption or investment. It is based on the marginal propensity to consume of the community at large, not on α or β which reflect the consumption habits of certain groups only. Usually, k is based on the community's marginal propensity to consume out of income *before* tax and thus allows for leakages from additional tax payments, in this paper it is based on consumption out of income *after* tax. Since the multiplier is based on the community's marginal propensity to consume out of income after tax, k will remain constant when tax rates fall and fall when tax rates rise. This avoids considerable difficulties which can only be mentioned here. If, for instance, expenditures are increased to sustain a higher level of income and the tax *rate* is held constant, the initial increase in expenditures must be sufficiently high to allow

⁹ An alternative approach would be to define α as the propensity to consume out of income before tax and T as such addition to tax yield as results from an autonomous increase in tax rates only, excluding such additional yield as results from an increase in the tax base. The net result, in terms of the addition to total income, would be the same for both approaches.

¹⁰ The lower the initially assumed yield level, the less serious is this defect. At the cost of some complication it may be remedied by adding another term to expression (1).

The difficulty might be avoided by redefining G to be the deficiency in income on the assumption of a zero (rather than a balanced minimum) budget. This would have the advantage of making T identical with the over-all yield level, so that changes in the β for the total tax yield would be accounted for. But this would be more than offset by the disadvantages of this approach, in particular (a) it would pose the altogether unrealistic problem of having to estimate G for the assumption of zero public expenditures and (b) it would exclude the analysis of budget adjustments involving a reduction in tax yield.

for the fact that tax yields will be increased at the higher level of income and the deficit be smaller. This is allowed for in our formulation of the problem where the deduction from βT will be positive. If, instead, the tax yield is held constant, this leakage will not be present and T will be equal to zero. However, the implied reduction in tax rates means that the marginal propensity to consume out of income before tax payments will be larger at the higher level of income. Under our definition k remains unaffected by such changes.

The final leverage factor is kI , the change in private expenditures on investment and consumption due to $\pm I$, the *induced change in private investment*. It is not related to changes in E_1 , E_2 or T in any simple multiplier fashion as is the case for consumption expenditures. Specifically, I is defined to include both such changes in investment as may accompany *any* over-all increase in income, brought about by fiscal or other policies, and such changes as may result from the impact of quite *specific* revenue or expenditure policies. If fiscal policy can be successful in assuring a high and stable level of income, this very assurance will undoubtedly contribute to a higher level of private investment. Also, private investment may be stimulated directly through developmental programs such as power development, urban redevelopment and so forth. Well-selected reductions in tax rates may give further incentives to private investment. On the other hand, higher tax rates, public expenditures which compete with private enterprise and psychological repercussions of an increased budget or of a rising debt may work in the opposite direction.

II

The interrelationship between the contribution of the budget to over-all income and the major variables of budget policy may now be illustrated with reference to hypothetical post-war magnitudes. The quantitative results, of course, are illustrative relationships, not forecasts or policy data. Like the equation of change, our formula presents questions rather than answers, but it may serve as a "table of contents" for some functional relationships involved.

For purposes of these illustrations the familiar concept of gross national product may be used as the over-all measure of income, even though theoretically the net product would be the better concept. The gross national product for the year 1950 is widely estimated at about 200 billion dollars under conditions of full employment. Now suppose that the outlook at the close of 1949 indicates a prospective gross national product of 170 or 180 billions only, both estimates being based on the assumption that the federal budget is balanced at a level of 10 billions.¹¹ This exceedingly low initial budget level

¹¹ The underlying situation might be as follows:

Given a balanced federal budget of 10 billion dollars and a similar budget for state and local governments, consumers' expenditures corresponding to a gross national product of 200 billions might amount to 142 billions. With real public expenditures of 17 billions, the remaining quota for private investment would be 41 billions. Assuming housing expenditures of 4 billions, growth in inventory of 2 billions, net exports of 2 billions, business replacement expenditures of 8 billions and net business investment of 10 billions, a deficiency of 15 billions would remain. With net business investment of 15 billions, the deficiency would be 10 billion dollars.

is assumed for analytical reasons, not because it is felt that expenditures could or should be reduced that far. Under such conditions, what adjustments in the budget can be made that will raise total income by 30 or 20 billions for the two assumptions respectively?

In answering this question, attention will be concentrated on three variables: the size of the budget, the size of the deficit and the consumption impact of the tax structure. First we shall consider the required level of public expenditures if given amounts of deficit are incurred and then the required size of the deficit if public expenditures are at given levels. In both cases the results will be observed for varying values of β .

Size of Required Budget as a Function of the Deficit and Tax Structure

It will be convenient to make certain substitutions in expression (1) as follows: E , the total increase in expenditures may be written for $(E_1 + E_2)$; rE may be written for E_1 , where r is the fraction of additional budget expenditures in the form of real expenditures; E minus D may be written for T , where D is the deficit. Because the effects of specific revenue and expenditure policies upon private investment cannot be appraised without a much more detailed analysis, they will be neglected in the following illustrations *and the term kI in expression (1) will be omitted.*¹² Specific investment effects will be reconsidered in the concluding paragraphs. Solving expression (1) for E , we have

$$(2) \quad E = \frac{G - k\beta D}{r + k(\alpha - \beta)}.$$

To concentrate on the more important variables, let us assume constant values for r , k and α . Values of .75 for r , 2 for k , and .70 for α may be reasonable.¹³ Substituting in (2) for the larger of the two gap assumptions, *i.e.*, for a gap of 30 billions, we have

Assuming a multiplier of 2, the gross product would settle at 170 or at 180 billions respectively. Consumers' expenditures might then be at about 127 or 137 billions respectively, the remainder in both cases being 17 billions of public real expenditures and 26 billions of investment. This disregards a further fall in income due to reduced private investment.

If investment declines with the level of income, as it most likely will, the gap between realized and full-employment income might be much above the 30 or 20 billions here assumed, but similarly, when the level of over-all income was raised through an appropriate fiscal policy, there would be a corresponding increase in private investment and income and, in choosing 30 and 20 billions as our gap illustrations, this "*income-induced*" effect on investment (as distinct from investment effects caused by specific revenue or expenditure measures), *has been omitted*. If it is assumed that the "*income-induced*" drop in investment as income falls is the same as the "*income-induced*" rise in investment as income increases, the autonomous increase in expenditures needed to close the gap may be estimated correctly while neglecting the "*income-induced*" changes in investment in both directions.

¹² While the investment effects of *specific* revenue or expenditure measures are thus not covered, our definition of the initial income deficiency implicitly allows for "*income-induced*" changes in investment. (See the preceding note 11.)

¹³ The community's marginal propensity to consume out of individual income after tax

$$(3) \quad E = \frac{30 - 2\beta D}{2.15 - 2\beta}.$$

To obtain total budget expenditures, the initially prevailing expenditure amount of 10 billion dollars is added to E ; if E is equal to zero, total expenditures are equal to 10 billions. Similarly, if the level of tax yield, or $E + 10 - D$ falls below 10 billions, tax yields are reduced from their initial 10-billion level.

TABLE I.—REQUIRED SIZE OF BUDGET UNDER ALTERNATIVE FISCAL POLICIES*
(In billion dollars)

β^b	Deficit—billion dollars												
	0	1	3	5	7	9.3	10	13	13.9	15	16	18	20
$G = \$30 \text{ billion}^c$													
0	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
.2	27.1	26.9	26.5	26.0	25.5	25.0	24.9	24.2	23.9	23.7	23.5	23.0	22.6
.4	32.2	31.6	30.4	29.3	28.1	26.7	26.3	24.5	23.9	23.3	22.7	25.6	20.3
.5	36.1	35.2	33.5	31.7	30.0	28.0	27.4	24.8	23.9	23.0	22.2	24.0	—
.6	41.6	40.3	37.8	35.3	32.7	29.8	29.0	25.1	23.9	22.6	21.4	18.8	—
.7	50.0	48.1	44.4	40.7	36.9	32.6	31.3	25.7	23.9	22.0	20.1	—	—
.9	95.7	90.6	80.3	70.0	59.2	47.9	44.3	28.9	23.9	18.6	—	—	—
$G = \$20 \text{ billion}^c$													
0	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	—
.2	21.4	21.2	20.7	20.3	19.8	19.3	19.1	18.5	18.3	18.0	17.7	—	—
.4	24.8	24.2	23.0	21.9	20.7	19.3	18.9	17.1	16.6	15.9	—	—	—
.5	27.4	26.5	24.8	23.0	21.3	19.3	18.7	16.1	15.3	—	—	—	—
.6	31.0	29.8	27.3	24.7	22.2	19.3	18.4	14.6	13.5	—	—	—	—
.7	36.7	34.8	31.1	27.3	23.6	19.3	18.0	—	—	—	—	—	—
.9	67.1	62.6	51.7	41.4	31.1	19.3	15.7	—	—	—	—	—	—

* Effects of *specific* revenue and expenditure policies on private investment are disregarded.

^b Fraction of marginal tax dollar reflected in reduced consumption expenditures.

^c Deficiency in income if budget were balanced at 10 billion dollars.

Proceeding from these assumptions, Table I shows the size of the budget total required to raise over-all income by the deficiency G if selected values of D and β apply. For each combination in the table, the required increase in expenditures (E) is obtained by deducting 10 billion dollars from the

is assumed at 4/5. Allowing for such factors as changes in corporate savings and in transfer expenditures, this might make for a multiplier estimating very conservatively of 2. The α for public real expenditures is assumed at 2/3, that is, somewhat below the 4/5 applicable to *individual* income after tax, since allowance must be made for such factors as corporate savings and changes in transfer payments. The α for transfer expenditures is assumed at .3. If r is assumed at .75 this gives a weighted average for the combined α of .7. As noted before, this simplified analysis does not allow for the fact that k varies with implicit changes in the tax rate.

budget total. The required change in tax yield (T) is obtained by deducting 10 billions from the yield total, *i.e.*, from the total budget minus the deficit. The results are shown for values of G equal to 30 and 20 billions. The table is to be read like a mileage chart. It shows, for instance, that with a deficit of 5 billions and a β equal to .6, an increase in expenditures from 10 to 35 billions would be required under the 30-billion gap assumption.

Moving *down* each column, Table I shows that, for low levels of deficit, the required budget will be the larger the higher the value of β , whereas for high levels of deficit the opposite is the case. At the deficit level of 13.9 billions for the 30-billion gap assumption (9.3 billions for the 20-billion gap assumption), the size of the required budget will be the same for all values of β . This must be the case because at that point E is equal to D so that T or $E - D$ is equal to zero.¹⁴ Since the tax yield remains unchanged, the value of β does not matter. If the deficit falls short of 13.9 billion dollars, it appears that $E - D$ is positive, *i.e.*, tax yield must be increased above the initial level because required expenditures are relatively high and the deficit is relatively small. If the deficit exceeds this figure, $E - D$ is negative, *i.e.*, the tax yield can be reduced from the initial level because required expenditures are relatively low and the deficit is large. While the change in yield is upward, the budget must of course be the larger the heavier the pressure of the additional taxes on consumption. If a reduction in tax yield occurs, this will be the more stimulating and hence the budget may be smaller the heavier the prior burden of the tax yield upon consumption.

Moving down the deficit columns, the required budget figure ($E + 10$) is carried to the point at which the size of the budget falls to the level of the corresponding deficit. Combinations which would require a smaller budget are not very meaningful and are indicated in Table I by dashes.¹⁵

Moving *across* each row, Table I shows how the required budget will be the smaller, for any positive value of β , the larger the deficit. If β is equal to zero, the required size of the budget will be the same for all values of D since there will be no difference between tax and deficit finance. More-

¹⁴ With T equal to zero (and neglecting kI), expression (1) becomes $G = rE + k\alpha E$. Substituting $G = 30$, we obtain $E = 13.9$. Adding the initial expenditures of 10, we have total expenditures of 23.9. Deducting initial taxes of 10, we have $D = E = 13.9$. Similarly, for $G = 20$ we have $D = E = 9.3$.

¹⁵ Given any level of deficit, the limiting value for β is that for which the entire budget can be deficit financed. Thus with a deficit of 16 billion dollars for instance, the limiting value for β may be found by substituting $E + 10 = 16$ in expression (3). We then obtain

$$6 = \frac{30 - 32\beta}{.75 + 1.4 - 2\beta} \quad \text{or} \quad \beta = .855.$$

For smaller values of β and a deficit of 16 billions, hoarding of deficit-financed funds would be required to avoid inflation.

The relationship between E and β for $D = 16$ is determined by

$$E = \frac{30 - 32\beta}{2.15 - 2\beta}$$

for values of $\beta \geq .855$.

over, if β is equal to zero, the required budget level will be the same as in the preceding case where the budget level was the same for all values of β .¹⁶ By increasing D for the higher values of β we again reach a point at which the entire budget is deficit financed and beyond which a further increase in the deficit would be meaningless.¹⁷

Table I, obviously, does not provide us with ready-made prescriptions for post-war budget policy. A number of arbitrary assumptions are involved and, most important, effects of specific tax and expenditure policies upon private investment are neglected.¹⁸ It will be of some interest, however, to consider what ranges of Table I may be relevant and what, if any, significance the results may have for post-war fiscal policy.

The value of β will undoubtedly depend upon the amount of tax yield relative to the level of income. If the tax yield were very small, say 5 billion dollars out of a gross national product of 200 billions, β might be held to a very low level; a very substantial part of the tax yield might be obtained out of middle to high bracket income taxes. But if the tax yield were to be larger, say 10 or 15 billions, this would be more difficult. If the yield were 20 or 25 billions a substantial burden on consumption would be inevitable. A β of close to .5 might be the best that can be expected for a 20-billion-dollar level. If the level of tax yield were still higher, say 30 billions or more, β would hardly be below .6 and possibly substantially more.¹⁹

¹⁶ In both cases, expression (2) reduces to

$$E = \frac{G}{r + k\alpha}.$$

¹⁷ Given any level of β the limiting value for D is again where $E + 10 = D$. Assuming $\beta = .6$ and substituting in expression (2), we have

$$D - 10 = \frac{30 - 1.2D}{2.15 - 1.2},$$

or $D = 18.37$. For larger values of D and a β of .6, hoarding of deficit-financed funds would again be required to prevent inflation.

The relationship between E and D for $\beta = .6$ is determined by

$$E = \frac{30 - 1.2D}{.75 + 2(.7 - .6)}$$

or $E = 31.58 - 1.26D$ for values of $D \leq 18.37$.

¹⁸ Note, however, that in choosing our gap illustrations we have excluded the more or less *automatic* changes in private investment which accompany general changes in over-all income. See, however, notes 11 and 12 above.

¹⁹ In an unpublished study on the "Impact of the Personal Income Tax on Savings," I have estimated the impact of alternative income tax rate structures upon savings and consumption at a high and low level of yield. While the results of this study are based on rather inadequate information as far as the consumption impact for *any one* rate schedule is concerned, they do give some idea of the differential impact obtained under various rate schedules.

For a yield of 16 billion dollars at a national income of 140 billions, the impact upon consumption is estimated at 43 per cent, assuming rates in effect in 1944, at 30 per cent assuming a maximum degree of progression and at 50 per cent assuming a flat rate (however, with 1944 exemptions). For a higher yield level the impact on consumption

If this is the case, the currently popular proposition that full employment can be readily reached through a large balanced budget may be dismissed as of little practical interest. Assuming a β of .6, the balanced budget needed to fill the 30-billion gap would be about 42 billions; for a β of .7, the result would be 50 billions, levels of expenditure which would seem out of question for the peacetime economy. If, as is altogether likely, such an exceedingly high level of taxation should depress private investment below the assumed level, the required budget would be still higher, which in turn might depress private investment still further and so on. The result might be expected to be more favorable if a higher value for α is assumed. Thus, with α equal to .9 and β equal to .6 the required budget would be 32 billion dollars instead of 45 billions, but only on the assumption that r remains at .75. This, however, is unlikely, since the increase in α to .9 would require that almost all the additional expenditures be for cash subsidies to low income consumption. If we allow for this and assume r to fall to .1, while keeping α at .9, the required budget rises to 53 billion dollars, or above the level required under the initial assumption. More reliance on consumption subsidies, therefore, does not render the "large and balanced" budget approach more feasible.

Size of Required Deficit as a Function of the Expenditure Level and Tax Structure

There is much to be said in favor of an alternative approach under which the desired size of the budget is taken as the independent variable, while the size of the deficit is obtained as a function of the predetermined expenditure level and of the best possible value for β . If this approach is taken, expenditure planning will be guided more largely by considerations of resource allocation and there will be less need for "made-work" projects. To illustrate this approach, expression (2) might be rewritten as

$$(4) \quad D = \frac{G + Ek(\beta - \alpha) - rE}{k\beta}$$

Retaining r at .75 and α at .7, we have, for the 30-billion-dollar gap assumption,

$$(5) \quad D = \frac{30 + E(2\beta - 2.15)}{2\beta}$$

Table II shows the required levels of deficit corresponding to selected levels of public expenditures ($E + 10$) and values of β . Again the results are shown for both the 30-billion and the 20-billion gap assumptions and again Table II is to be read like a mileage chart. Thus for the large gap assumption and a budget of 28 billions (where $E = 18$), the required deficit is somewhat below 11 billions if β is equal to .6.

would be substantially higher. Assuming such proportionate increase in the 1944 rates as is necessary to raise the yield to, say 30 billions (which might correspond to 40 billions at the higher income level here assumed), the ratio would be well above 50 per cent. If excises were relied upon, the average ratio would, of course, be substantially higher.

TABLE II.—REQUIRED SIZE OF DEFICIT UNDER ALTERNATIVE FISCAL POLICIES^a
(In billion dollars)

β^b	$G=30^c$				$G=20^c$			
	Total Budget Expenditures							
	28	23.9	20	15	28	20	19.3	15
0	*	d	—	—	*	*	d	—
.1	*	13.9	—	—	*	2.5	9.3	—
.2	*	13.9	—	—	*	6.3	9.3	—
.3	3.5	13.9	—	—	*	7.5	9.3	—
.4	7.1	13.9	—	—	*	8.1	9.3	—
.5	9.3	13.9	18.5	—	*	8.5	9.3	14.3
.6	10.8	13.9	17.1	—	2.4	8.8	9.3	12.7
.7	11.8	13.9	16.1	—	4.6	8.9	9.3	11.6
.8	12.6	13.9	15.3	—	6.3	9.1	9.3	10.8
.9	13.2	13.9	14.7	—	7.6	9.2	9.3	10.1
.95	13.4	13.9	14.5	15.0	8.2	9.2	9.3	9.9
1.0	13.7	13.9	14.3	14.72	8.7	9.3	9.3	9.6

For explanation of asterisks and dashes, see text below.

^a Effects of *specific* revenue and expenditure policies on private investment are disregarded.

^b Fraction of marginal tax dollar reflected in reduced consumption.

^c Deficiency in income with balanced budget of \$10 billion.

^d If $\beta = 0$, it is a matter of indifference whether the budget is tax- or loan-financed. Hence, the deficit may assume any value between zero and total budget expenditures.

The general picture provided by Table II is very similar to that of Table I. Moving *down* each column we now find that the required deficit will increase or decrease with a rising value of β , depending on whether the adjusted yield falls above or below the initial level, *i.e.*, whether T is positive or negative. Again the required deficit is the same for all values of β when E is equal to D so that the level of tax yield is unchanged.²⁰ Moving *across* each line, we now find at all values of β that the required deficit is the larger the smaller the size of the budget.

Again certain combinations of E and β are ruled out because they imply either (a) an excess of deficit over total expenditures or (b) a negative deficit. In the case of (a) we have a situation where the proposed increase in expenditures is relatively small, so that a decrease in tax yield is required to obtain the necessary leverage. The heavier the consumption incidence of the initially obtained tax yield, *i.e.*, the higher β , the more stimulus is provided by a dollar's worth of tax reduction and hence the smaller is the required tax reduction or necessary deficit. If the β of the decrement in tax yield falls to a certain point, the required deficit will be so large as to necessitate the repeal of all taxes. If β is still smaller, we have the situation indicated by dashes in Table II, where the scheduled increase in expenditures is insufficient to pro-

²⁰ The explanation is similar to the preceding case, see note 16 above.

vide the required leverage, even though the entire budget is deficit financed.²¹ The leverage can not be increased further without raising expenditures, and this is not possible because a given budget level is assumed. With respect to (b) the opposite situation prevails. There the scheduled increase in expenditures is relatively great, so that tax yields must be raised to avoid inflation. The lower the value for β , the higher will the increase in tax yield have to be and the smaller is the permissible deficit. If the β of the increment in tax yield falls to a certain point, it will be necessary to balance the entire increase in expenditures with increased tax yield, so that D is equal to zero. If β is still smaller we have the situation indicated by asterisks in Table II, where the scheduled increase in expenditures is too high to avoid inflation, even though a balanced budget is retained.²²

Table II indicates that, within the range of feasible adjustments, the size of the required deficit may be considerably reduced, or the extent of permissible tax increase be considerably increased, if β can be held to a low level. Taking the 28-billion-dollar budget, for instance, the necessary deficit for the large gap assumption will be 7 billions if the β for the additional taxes can be held to .4 and nearly 12 billions if the β rises to .7. For the small gap assumption the same budget can be balanced only if β can be held down to .52. But whatever their relative impact upon consumption, all additions to tax yield are more or less restrictive. As shown in Table II, the size of the deficit will have to remain the major variable of budget policy if the initial gap in the level of over-all income is large, whether the deficit be brought about by raising expenditures more than tax yields, as under the large budget assumptions, or by raising expenditures while lowering tax yields, as under the small budget assumptions.

Specific revenue and expenditure effects on investment are included in expression (1) but have been neglected in its experimental application to possible post-war magnitudes. Since the picture might be quite different if such effects on private investment are accounted for, this greatly limits the usefulness of our illustrations. The effects of fiscal policy upon private

²¹ For the case of the 20-billion budget and the large gap assumption, expression (5) reduces to

$$D = \frac{10\beta + 4.25}{\beta}.$$

The minimum value below which β must not fall is reached where D is equal to $E + 10$ or 20; at this point β is equal to .425. If β is smaller, the required deficit exceeds the level of expenditures, *i.e.*, the scheduled increase in expenditures is insufficient to provide the necessary leverage even though the entire budget is deficit financed.

²² For the case of the 28-billion-dollar budget and the large gap assumption, expression (5) reduces to

$$D = \frac{18\beta - 4.35}{\beta}.$$

The minimum level below which β must not fall is now reached where D is equal to zero and hence β is equal to .24. If β is smaller, the formula indicates a "negative deficit," *i.e.*, tax-financed hoarding is required to forestall inflation.

investment are a complex matter and sufficiently familiar to render any brief enumeration superfluous; a detailed discussion would greatly exceed the limits of this paper.

Even cursory examination of the problem suggests, however, that private investment is likely to be the lower, *at any given level of total income*, the higher the level of taxation and (with the exception of stimulating developmental programs) the larger the government budget. If the initial deficiency in over-all expenditures is large, we have seen that the balanced budget approach will require exorbitantly high levels of expenditures and taxation, both of which will tend to depress private investment. If, as a result, private investment expenditures are depressed, budget figures even higher than those shown in Table II are needed. If the unfavorable reaction of private investors is violent, tax-financed additions to expenditures when carried beyond some point may well lower rather than increase the over-all level of income.

All this points to the conclusion that a substantial deficit will be needed unless we succeed by non-fiscal means to narrow down the initial deficiency in the over-all expenditure level to much below the illustrative figure of 30 billion dollars used in the preceding discussion. If a large deficiency remains to be filled through fiscal measures, after other policy approaches have been exhausted, it will be neither desirable nor feasible to make expenditures sufficiently large to balance the budget at full employment. Instead, a thoroughly worth-while expenditure budget should be provided including expended social security and adequate developmental programs stimulating to private investment, but excluding made-work projects.²³ On the basis of such an expenditure program the level of taxation should then be set sufficiently low to leave such deficit as the economic situation may require in the average year. After the budget is thus adjusted to the longer-term needs of the economic situation, short-term variations in underlying conditions and localized relief needs remain to be met by a flexible expenditure program and an elastic tax system, including flexible income tax rates.

RICHARD A. MUSGRAVE*

*The author is in charge of the fiscal policy work in the Division of Research and Statistics, of the Board of Governors of the Federal Reserve System. The views he expresses are his own and not necessarily those of the Board. A. G. Hart, E. E. Hagen and J. Mosak have made helpful suggestions on an earlier draft of this note but share no responsibility for its shortcomings.

Professor Hansen's Fiscal Policy and the Debt

In the face of his consistent championship of a fiscal policy which provides for government expenditures to bolster the national income, Professor Alvin Hansen has equally consistently injected the warning that "there are limits to the public debt which, if exceeded, will tend to affect the workability of the economy."¹ These limits are conceived in terms of relatives. The degree to

²³This principle, of course, does not indicate whether the budget should be large or small. It merely requires that long-run expenditure planning should be considered primarily a matter of resource allocation rather than of employment creation.

¹Hansen, *Fiscal Policy and Business Cycles* (New York, Norton, 1941), p. 174. See also Hansen and Perloff, *State and Local Finance in the National Economy* (New York, Norton, 1944), pp. 295-96.

which deficit financing may be used to achieve the desired goal depends upon the economic circumstances of the moment. Some of the factors which must be considered are (1) the nature of the expenditures themselves; (2) the wage and price structure; (3) the tax schedule; (4) the distribution of the debt; and (5), this above all, the level of the national income.

The national debt cannot be considered by itself, but only as the numerator of a ratio, the denominator of which is the national income. If the national income is rising with the national debt, the ratio need not change and the growing debt need cause no alarm. Professor Hansen does not necessarily imply that the existing ratio should be maintained. At *some* point, however, the ratio must be held and at that point the above line of argument becomes important. Thus Professor Hansen, after exploring the necessity of restricting government expenditures when inflation threatens, goes on to say:

But a complete reversal of this procedure is called for when depression threatens. For an increase in the debt resulting from expenditures in excess of revenues from taxation will add to real income and employment when the purchasing power in the hands of the public is short of the total of goods and services that could readily be produced for sale.²

The national income rises with the public debt; and the service charges on the debt, even in the absence of any change in the interest rate, are proportionately no greater.

Let us examine this argument more closely in the light of certain other propositions laid down by Professor Hansen.

1. "Whenever investment falls off, employment and income decline."³ This cardinal proposition is self-evident in view of Hansen's definition of income as equaling consumption plus investment. It is repeated in various forms throughout his writings.

2. "What is necessary is that private investment must be equal to the savings that are generated at a high employment level. When private investment falls below this level of savings, income and employment necessarily will decline unless government issues absorb the excess of saving over net private investment."⁴ Thus, in the absence of sufficient private investment, government expenditures are needed not to *increase* but to *sustain* the national income.

3. "The problem of our generation is, above all, the problem of inadequate private investment outlets."⁵ Thus we may *expect* an insufficiency of private investment, and the necessity of governmental expenditures to *sustain* the national income.

Now if the public debt is rising and the national income remains at a sustained level, the ratio argument falls to the ground. The burden of service charges on the debt is becoming proportionately greater. At what point will

² *State and Local Finance*, p. 293.

³ *Fiscal Policy and Business Cycles*, p. 226.

⁴ *State and Local Finance*, p. 234.

⁵ *Fiscal Policy and Business Cycles*, p. 362.

the worsening ratio destroy public confidence—confidence not so much in the solvency of the government as in the workability of the economic system?

One of Hansen's supporters, David McCord Wright, has noted this fear of "conservative writers," admits the theoretical basis for it, but promptly dismisses it as "a wholly false issue which serves only to confuse the real question involved."⁶ It must be pointed out, however, that Wright may so summarily dismiss this very real problem because he does not agree with Hansen on the thesis of the mature economy.⁷ Once the assumption of inadequate private investment outlets is admitted, the dangers of a continuously (or nearly continuously, in deference to Hansen) rising debt, against a stable national income, become real, not theoretical, considerations. And Hansen's comforting words, "There is not—there cannot be—any financing problem that is not manageable under a full-employment income,"⁸ fall strangely flat.

A careful reading of Hansen seems to indicate that his failure to recognize the violence done to his fiscal policy by this possibility of continued government expenditures to sustain, not increase, income stems from his failure to distinguish between the application of that policy to cyclical depression and to secular depression. His ratio argument may be admitted if one is dealing with business cycles, where, over time, depressions are matched by booms, and deficit expenditures by tax receipts in excess of expenditures. "It becomes clear, then, that if the over-all total of the debt in relation to the national income is manageable, it may be raised or lowered, as a part of the operation of a coördinated fiscal policy in conjunction with a flexible program of public investment, sufficiently to keep the economy at all times on an even keel."⁹ Secular depression, however, is characterized by an absence of booms, and, following Hansen's policy, by continued deficit financing, except for rare intervals when private investment alone can carry the load. The ratio of debt to income increases. Where now is the safe limit?

Professor Hansen may not have considered this particular problem because, strangely enough, he seems to believe that government spending to *maintain* income will not as a rule be necessary. This view, surprising for one who accepts the mature economy thesis, is based upon his assumption of "an increase in the national income as productivity increases, at the rate of 3 per cent per annum."¹⁰ From this position he goes on to say that, due to this

⁶ D. McC. Wright, "Moulton's *The New Philosophy of Public Debt*," *Am. Econ. Rev.*, Vol. XXXIII, No. 3 (Sept. 1943), p. 587-88. I strongly object to Wright's line of reasoning in this portion of the article cited. There is no reason to assume that our economy is suffering from a "disequilibrium" which can be "corrected," which is his conception of the real question involved. Such an hypothesis is itself founded on the (unwarranted) assumption that the so-called disequilibrium, whatever it may be, may not constitute a basic change in social structure to which the economy must be adjusted. However, no further discussion of this point will be made here, as this article is concerned with Hansen's theories and not Wright's. Wright's statements have been introduced only for what light they may throw upon Hansen's analysis.

⁷ Wright, *Am. Econ. Rev.*, Vol. XXXIII, p. 579.

⁸ *State and Local Finance*, p. 188.

⁹ *Ibid.*, pp. 293-94.

¹⁰ *Ibid.*, p. 288.

rise in national income attributable to population increase and technological advance, a rising debt can be accepted without alarm since income is growing simultaneously with debt, and the debt-income ratio can therefore be maintained.

If the public debt should rise, on the average by \$3 billion a year, this would mean, assuming a public debt at the end of the war of around \$275 billion, an increase in the debt of slightly over 1 per cent per annum. We can be quite certain that income will rise substantially more than that, probably around 3 per cent per annum, due partly to an increase in the labor force and partly to increasing per worker productivity. As productivity rises, it automatically follows that the real income must be raised proportionately, or more and more unemployment will be created. If we are to solve our unemployment problem and continue to achieve higher and higher levels of productivity we *must* achieve higher and higher levels of real income. A \$3 billion annual deficit cannot be regarded as resulting in a dangerous ratio of public debt to national income. As we have seen, the debt would rise percentagewise very much less than the expected increase in national income. Thus the ratio of debt to income would, on this model, continuously fall.¹¹

This passage follows an exposition by Hansen of a model budget based on an intermediate level of net private investment. In this model he assumes savings of 15 billion dollars out of an income of 135 billions, with 3 billions as the unspent margin. "If the level of private investment which could be maintained for long is around \$12 billion, and if private savings at the assumed income of \$135 billion are \$15 billion, it is clear that new government issues would have to take up the difference unless ways and means were found of raising private consumption and reducing the volume of savings. . . . In this model, therefore, it is assumed that federal expenditures, including the social-security program, are \$27 billion, with taxes, including payroll taxes, at \$24 billion."¹² He then goes on to say, as previously quoted, that this 3-billion-dollar annual deficit cannot be regarded as dangerous since it is offset by an (estimated) annual increase in income of 3 per cent.

These are some of the most perplexing paragraphs in all the Hansen literature. It is difficult to perceive what Hansen has in mind here. Is he talking about an annual 3 per cent increase in real income, unaccompanied by an increase in money income? If he is talking about a rise in money income, in what manner are population increases and technical advances translated into money income? By increased private consumption and investment, or by further government spending? Let us examine all these possible meanings of this obscure argument which is so critical in Hansen's analysis. In such an examination it will be remembered that whatever the nature of the 3 per cent rise in income, it is to be accompanied, on Hansen's model, by deficit spending to the extent of 3 billion dollars.

Although Hansen does speak of real income in these paragraphs, he cannot mean an increase in real income unaccompanied by an increase in money

¹¹ *Ibid.*, p. 240.

¹² *Ibid.*, pp. 239-40.

income. For continued deficit spending in the absence of a rise in money income would necessitate a worsening of the debt-income ratio, a possibility which Hansen does not envisage. This interpretation must therefore be ruled out.¹³ The question then becomes: In what manner do the population and technological factors provide the basis for an increase in money income?

Is Hansen perhaps suggesting that population increases and technological advances will bring out additional private investment and consumption, to the extent of 3 per cent of the income of the preceding period? It does not seem likely. He begins his model with an assumed income of 135 billion dollars, of which 3 billions are saved and not spent, necessitating government deficit spending to sustain this level of income. With government spending, however, the slack is taken up, and there remains no unspent margin. Now in what manner does the income of 135 billions in this period become an income of 139 billions in the second period—that is, an income which has been increased 3 per cent due to population and technological factors?

Obviously, the income rise must come through increased consumption or increased investment. Hansen himself has declared that, at a given income level, consumption is a most stable function, and that an increase in consumption is dependent on a prior increase in investment.¹⁴ Moreover, it is this very increase in investment which causes the rise in income—not a rise in income which causes investment. It cannot be, therefore, that in Hansen's model income rises from 135 to 139 billions *prior* to a net increase in investment. It must be an increase in investment (permitting also an increase in consumption) which itself creates the new income. Now if new private investment to the extent of 3 per cent of the previous period's income takes place in the second period, this new investment (and subsequent new consumption) will take up the slack of 3 billion unspent savings which Hansen assumes—and create an additional one billion of income besides. Income will have risen not to 139 billion dollars but to 136 billion, but it will have risen. The unspent savings of the period will have been utilized. And so long as Hansen assumes a *normal* 3 per cent rise in income due to growth factors, and *normal* unspent savings of 3 billion (increasing somewhat, no doubt, with the increase in income), the 3 per cent rise, resulting from new investment, will always more than compensate for the otherwise unspent 3 billion dollars. If Hansen believes that the 3 per cent rise cannot take up *all* the unspent margin, then he is assuming that somehow, some way, somewhere, income has risen *prior* to the new investment. Otherwise, no government deficit financing is necessary on this model, unless there are unemployed factors and it is declared public policy to put them to work and push up income faster than it otherwise would rise. In brief, Hansen cannot assume at one and the same time (a) a national income *less* than the preceding period (falling from 135 billions, obtained in part from deficit spending, to 132 billions, necessitating continued

¹³ It is possible Hansen may mean that a rise in real income makes the growing debt no more burdensome to the taxed individual than formerly, but if this is his intent he is, at the same time, abandoning the very debt-income ratio argument which he is trying to establish! That ratio is constantly referred to in money, not real terms. The injection of real-income considerations would introduce entirely new problems which Hansen does not consider, and in which—at least in this context—he is presumably not interested.

¹⁴ *Fiscal Policy and Business Cycles*, p. 305.

deficit financing) and (b) a national income *greater* than the preceding period (rising by 3 per cent due to population and technical considerations).

There is one other possible interpretation to be placed on Hansen's words—that population growth and technological advances permit a normal annual 3 per cent increase in national income, but that the new investment required to obtain this increase is not forthcoming from private business and must be made by the government if the increase is to be attained at all. On this construction the argument would run that 3 billion dollars of government deficit financing would be required to maintain the assumed original income level of 135 billions, and additional government deficit financing would be needed to drive income up to 139 billions, the level now permitted by advancing population and technology.¹⁵ Further, this new debt could well be tolerated because income is rising with it and the debt-income ratio is thus no worse than before.

It will be recalled that Hansen is assuming a ratio of approximately 2 to 1, since he begins with a debt of 275 billion dollars and an income of 135 billions. Now if the "safety" of this 2 to 1 ratio is accepted without question, this construction of the argument is logically defensible. For even if the 3 per cent rise in income can be achieved *only* by government spending, the total increase in the debt would be 7 billions (3 billions to bring income up to the previous level of 135 billions, 4 billions to drive it up by 3 per cent), while income would rise by 4 billions. Thus the ratio of the increases in debt and income is somewhat less than the original ratio of 2 to 1.

It is to be noted, however, that proponents of this argument are in the position of saying that it is (or may be) bad policy for the government to spend to *maintain* income, since the debt-income ratio would be worsening. Debt rises while income is only sustained. But it is sound policy to spend as much more as necessary to *raise* income by half the amount of the additional debt. It is (or may be), therefore, bad for government to spend 3 billions to sustain income at 135 billions, but it is sound for government to spend 7 billions to raise income to 139 billions. On the basis of Hansen's words alone, one would tend to conclude that this line of argument is not what he has in mind, however, since he speaks of a public debt rising on the average by only 3 billion dollars a year—the amount necessary, on his model, merely to sustain income.

At this stage one might conclude that Hansen's injection of the 3 per cent rise in income due to population and technological factors is wholly extraneous to the analysis. If these factors do secure an increase in income, it is only in so far as they operate through investment and consumption. In so far as they operate through investment and consumption, they may serve to take up any existing slack resulting from unspent savings. If they take up that slack completely, government deficit spending is not needed. If they do not take up the slack, government deficit spending can be resorted to, in an effort to sustain the level of income—though in doing so the debt-income

¹⁵ No account is taken here of possible multiplier and acceleration effects, since such effects do not alter the general analysis and since Hansen has himself disregarded them in his considerations of the amount of government spending required to offset unspent savings.

ratio is worsened. If it becomes declared policy *to see to it* that national income advances by 3 per cent per year,¹⁶ government spending can be proportionately increased—whether or not a slack of money savings has to be taken up. The question of “normal” income increases due to population and technology can be handled wholly within the framework of analysis which Hansen has himself provided. But population growth and technological advances cannot in themselves be considered as *automatically* increasing income and thereby justifying a rising debt.

These conclusions would seem warranted on the basis of Hansen’s published work, since his intent there is not clear. If this uncertainty as to his intended meaning protrudes from his writings, however, we have a perhaps clearer indication as to what he has in mind from others who may have acquired a greater familiarity with his views, possibly through personal contact or sources less well known than his principal writings. From them we may presume that Hansen has, in fact, intended to convey the third of the three possible interpretations examined above—that population and technological advances permit a normal annual 3 per cent increase in national income, *which should be secured even if attainment comes only through deficit financing*.

Thus one to whom the earlier paragraphs of this article were sent for editorial comment declared:

The secular stagnationists, such as Hansen, assume there is stagnation in investment opportunities and effective demand, but they are the most blooming optimists with respect to technological change as it affects productivity and *potential* national income. How much government expenditure would be necessary for full employment under these dynamic conditions? Hansen assumes that savings at full employment will always be about a constant proportion of income because of upward shifts in the consumption schedule. At worst, therefore, if private investment opportunities were zero, government deficits would have to grow in geometric ratio along with the compound interest rate of growth of income. And it turns out that the debt would also grow at the same compound rate of interest—leaving the ratio of debt to income unchanged. This is precisely what Hansen has always meant.

Such a policy of government guarantee of a *rising* national income has been explicitly stated by Evsey D. Domar in a recent article in the *American Economic Review*.¹⁷ While Domar is a Hansen adherent, it is not possible to say whether his views also are representative of Hansen’s. Answering critics of government deficit financing, Domar points out that *if* national income rises at a constant percentage rate, on the basis of certain stated assumptions the ratio between the debt and the national income will approach a constant. In a note of warning, he is careful to point out, however, that although his discussion “might give the misleading impression that national income is the independent variable,”¹⁸ it is of course investment expenditures which are

¹⁶ On the prospects of maintaining this assumed rate of growth, see B. U. Ratchford’s review of Hansen’s and Perloff’s book, *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec. 1944), p. 918.

¹⁷ Vol. XXXIV, No. 4 (Dec., 1944), pp. 798-827.

¹⁸ Domar, *Am. Econ. Rev.*, Vol. XXXIV, p. 804, note 18.

the independent variable. "If a rising income is desired, there must be both rising expenditures and rising productive capacity."¹⁹ And to assure the necessary monetary expenditures, the government should if necessary, though not desirably, resort even to leaf-raking projects.

In that simple recognition that national income is not the independent variable lies the *only* difference between Hansen's and Domar's analysis.²⁰ Surely no one would raise the ridiculous charge that Hansen does not appreciate this elementary income-investment relationship! Yet Hansen has written as though a rising national income was given: "We have a right to *assume*, I think, an increase in the national income as productivity increases, at the rate of 3 per cent per annum."²¹

Numerous passages in Hansen's writings could be adduced to show his stress of the dependent relation of income to investment. In fact, the whole burden of his writings is to that effect. The assertion being made here is only that, in connection with his justification of a rising debt, Hansen has not made clear that the *rising* national income, which is to justify the rising deficit, is to be attained if necessary *by* deficit—that is to say, that deficit financing should be undertaken as needed to guarantee the (assumed) 3 per cent increase in income.²² If this is actually his position, then Hansen and Domar stand on the same footing. The debt problem is solved by incurring more debt.

It would clarify the economic atmosphere and remove important grounds for misunderstanding if Professor Hansen himself redefined his position. Forgetting, at least for the moment, all that has gone before, a concise answer from him to the following question would be welcome: Should the government guarantee, by deficit financing as needed, a national income rising annually by a constant percentage rate?

If the answer is in the affirmative, then Hansen's critics have been unduly concentrating their fire. For in addition to the problem of the burden of the debt (which remains unsolved in spite of Domar's excellent analysis, and which contrary to his belief may not even be the most important objection), there is a further problem awaiting examination: the political and economic effects of governmental efforts to spend the sums envisaged. Some aspects of this problem, it is true, have been raised in general terms by such writers as Hayek and von Mises. It has not, however, received its deserved examination in terms of specific application to American institutions.

NEIL W. CHAMBERLAIN*

* The author is now on active duty with the United States Naval Reserve. In accordance with Art. 113(2) of the 1920 (revised) *United States Navy Regulations*, it is here noted that the opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

¹⁹ *Am. Econ. Rev.*, Vol. XXXIV, p. 817. Domar is more cautious than Hansen in his projection of the rate of increase of productive capacity.

²⁰ Except that Hansen would no doubt accept leaf-raking with greater reluctance.

²¹ *State and Local Finance*, p. 288. Italics supplied.

²² If this is what Hansen means, his faulty arithmetic in such a passage as that cited in note 11 above has provided additional grounds for confusion. See p. 403 above.

A Note on Fiscal Policy: A Clarification

I welcome Mr. Neil Chamberlain's note because it gives an opportunity to clarify matters which have either been assumed or not stated with sufficient precision.

Let me answer the last question first. A full employment program means the assumption by the national government of responsibility of ensuring that total money outlays (private and public) will be sufficiently large so that the demand for goods and services at current prices will be adequate to employ the entire labor force (transitional unemployment of 4 or 5 per cent considered). This indeed is essentially the goal set forth in the Murray Full Employment bill and in the British *White Paper on Employment Policy*.

If this goal is over the long-run substantially realized the national real income can be expected to rise by reason of (a) improvements in technique and (b) increase in the labor force. Under such a program total money income and total real income would rise at approximately the same rate. Thus the internal purchasing power of the monetary unit would be preserved or, in other words, the cost-of-living price index would be substantially stable.

While improvements in production techniques can more or less be expected to occur automatically we should not leave this important matter to mere chance. We should deliberately foster technical progress by ample governmental support for scientific research. We should reform our patent laws so as to promote full use of existing technical knowledge. We should undertake a far more effective antimonopoly program.

Under a planned program of expansion, together with increasing productive efficiency and a growing labor force, we can estimate fairly accurately the probable rise in national income.

Should the government undertake such a program by loan expenditures, commonly called (though often with misleading implications) "deficit financing"? Mr. Chamberlain has apparently missed a point which I have repeatedly made, namely, that an expansionist and developmental fiscal program, designed to promote full employment, can be wholly tax-financed. (See *State and Local Finance in the National Economy*, pp. 243-46; 287-92, and references there cited to my other writings).¹ A tax-financed expansionist program will, however, require larger public outlays to achieve full employment than one partially loan-financed. An increase in public outlays, tax-financed, will change the consumption function and also the volume of private investment so as to produce a savings-investment balance at full employment. I elaborate the technical aspects of this problem somewhat more fully elsewhere in this number of the *Review*.

Here it is sufficient to stress the point that an expansionist and developmental program does not necessarily involve long-run deficit financing. I happen to believe, however, that given the conditions which are likely to

¹ See also Sir William Beveridge, *Full Employment in a Free Society*; and Henry C. Wallich, "Income-Generated Effects of a Balanced Budget," *Quart. Jour. Econ.*, Vol. LIX, No. 1 (Nov., 1944), pp. 78-91.

confront us in the post-war years,² it would be wiser for us to loan-finance some considerable part of the developmental program which it will be necessary for us to undertake. A reasonable degree of loan financing will offer outlets to our savings and would fit our established institutional arrangements better than the more drastic program of financing the whole from taxation. There will be difference of opinion as to how much should be financed from taxes and how much from borrowing. But I repeat, it can all be tax-financed if this policy is deemed the desirable one.

A point which bothers Mr. Chamberlain is the savings-investment balance in (a) a society in which income is *maintained* and (b) one in which income *grows*. To begin with it should be stressed that the *maintenance* of full employment in a progressive society (advancing techniques and growing labor force considered) means a *rising* real income. Many of us (myself included) have perhaps been somewhat careless in using the phrase "maintenance of income" when we really meant "maintenance of a full-employment income." The former literally means a stable income at a *constant* level; the latter means (in a growing society with improving techniques) a *rising* income.

Now what about the savings-investment relationship (a) under a *constant* income, and (b) under a *rising* income? "Investment" here includes all offsets to savings—public loan expenditures as well as private investment. In Robertsonian language, saving and investment are in equilibrium only when income flows on at a constant level. If income rises, investment exceeds saving; if it falls, saving exceeds investment. However, in the statistical sense (*ex post*) used in estimates of the component parts of the gross national product, saving and investment are always equal. (Saving and investment are also always equal in the "logical" or "mathematical" formulation of Keynes.)

In a full-employment society (with improving techniques and a growing labor force) income must rise; or in Robertsonian language, investment will exceed saving. In other words, saving from the disposable income of yesterday (Robertson's "saving") must be less than the realized saving springing from the higher income of today (saving in the statistical or *ex post* sense).

Now the 3-billion-dollar loan expenditures referred to in my model has to do with the problem of maintaining full employment. Under certain conditions in which the tax structure and the propensity to save are given (together with technological, population and other factors affecting the inducement to invest), 3 billion dollars of public loan expenditures may be necessary to provide full employment. Under other conditions this figure may be zero or it may be 6 billions. My 3 billion figure was one out of several used in a series of models set out for purposes of analysis and discussion. I was not setting out an actual budget for, say, the year 1950. What that should be will depend upon the circumstances of the time.

The sum of 3 billion dollars might indeed be the amount of public loan expenditures needed to maintain a full-employment income (*i.e.*, a *rising* income in a society enjoying technical progress and a growing labor force). We know that in a growing society investment (private investment plus public loan expenditures) must exceed "saving" (Robertsonian) by an

² I refer here to the period following the post-war re-stocking boom.

amount equal to the increase in income necessary to maintain full employment. This tells us by how much investment (public and private) must actually exceed Robertsonian saving. If income in a full-employment program does rise by 3 billion dollars per year, and if public loan outlays are also 3 billions, then private investment and "saving" (Robertsonian) would be equal at, say, 12 billion dollars. On this basis, however, saving (in the statistical, *ex post* sense) would be 15 billions and, since private investment is only 12 billion, therefore 3 billions of public loan expenditures would be the necessary condition to sustain a *full-employment* income (*i.e.*, a *rising* income). If, however, savings were 15 billion dollars in the Robertsonian sense and private investment were only 12 billions, then 3 billions of public loan expenditures could not sustain a full-employment income but only a constant income. In *State and Local Finance in the National Economy* (p. 233, and in what follows), I was using the statistical meaning of saving, but I am bound to admit that the concepts are not there sufficiently elaborated.

While the definitions used in the model are certainly not sufficiently precise, I think the argument with respect to the ratio of national debt to income is pretty clear. What I said in substance was that an expansionist and developmental fiscal program designed to maintain full employment should give us a rising national income of 2 to 3 per cent per year depending upon the rate of improvement in the arts and the growth of the labor force. Given this rise in national income, the debt could rise by a corresponding percentage without any increase in the ratio of debt to income.

Should we conclude that it would, on balance, be desirable policy to hold the debt-income ratio where it will be at the end of the war, that would permit an annual volume of borrowing of, say, 6 to 9 billion dollars per annum in the first years (and more as the base rises) if we assume an increase in income of 2 or 3 per cent per annum. Moreover, as is well known, the ratio of debt to income could rise substantially without involving any increase in tax *rates* owing to the high elasticity of tax revenues under a progressive tax structure.

The final question relates to whether the necessary public outlays would encroach upon private enterprise and weaken political democracy. With respect to the former, economists would do well to study, far more than they have done, the areas where our deficiencies are the greatest. They include education (40 per cent of our children grow up in sub-standard areas) public health facilities, nutrition, slum clearance, resource development and many others—precisely the areas in which only public outlays can meet the need. Large public outlays in these areas are sorely needed quite apart from the problem of full employment. And these are not areas that encroach upon private enterprise. Whether meeting these problems will weaken or strengthen our political democracy I have discussed elsewhere.³

ALVIN H. HANSEN*

*The author is professor of economics at Harvard University.

³ See my article on "The Crusade Against Planning," *New Republic*, January 1, 1945.

Mr. Domar's "Burden of the Debt"

In Mr. Domar's article entitled "The 'Burden of the Debt' and the National Income,"¹ it seems to me that he has, by his assumptions and his methodology, eliminated from the area of consideration nearly all significant economic problems. In this note I shall examine: (1) the assumptions underlying Mr. Domar's computed "tax rates"; (2) the relationship assumed by him to exist between public deficits and national income (*i.e.*, the size of the multiplier); and (3) the effects which he expects varying tax rates to have upon investment and income.

If I understand him correctly, Mr. Domar's principal concern is with the rates of taxation which would be necessary, under various assumed levels of national income, to produce the funds required to pay the interest on a national debt which grows annually and without limit by a constant per cent of the national income. He attempts to determine what those rates would be by computing the dollar amount of the interest on the debt each year and then relating those amounts to the taxable (national) income, the latter being defined to include the interest paid. The ratios so arrived at he labels "tax rates." He is able to do this because he assumes "that service charges are raised by means of a *proportional* income tax imposed on the total taxable income (*without any exemptions*) . . ." (p. 802; italics supplied). He does not so state, but he also appears to assume that no deductions would be allowed.

The federal government does not now levy any tax closely resembling the one assumed by the author nor is it likely to levy any such tax in the predictable future. Consequently, the "tax rates" arrived at by Mr. Domar are as unrealistic as are his assumptions of proportionality and no exemptions; it is difficult to see wherein they have any significance except as an exercise in arithmetic. cursory examination of figures for the calendar year 1942 indicate how far removed this assumed tax is from the income tax then in effect. In that year the personal exemption for a married man was \$1,200 and for a single man, \$500; the credit for a dependent was \$350. These exemptions are much lower than those in effect in the years immediately preceding 1942; certainly they are as low as any we may expect in time of peace, if not lower. In 1942 income payments to individuals were 116.6 billion dollars²—near enough to Mr. Domar's assumed starting income of 130 billions to make the comparison significant. The total number of taxable individual and fiduciary returns made under the income tax law for the year 1942 was 27,285,265. These showed an aggregate net income of \$68,187,727,000. From this figure were deducted \$24,694,139,000 for personal exemptions, \$5,037,270,000 as credits for dependents, and \$5,963,694,000 as credits for earned income,³ leaving as the *effective tax base* only \$32,492,624,000, or not much over one-

¹ *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec., 1944), pp. 798-827.

² *Survey of Current Business*, April, 1944, p. 14.

³ Treasury Department press release no. 41-69, April 28, 1944, p. 5. Credits for earned income are no longer allowed.

fourth of the total income payments for that year. From this we may infer that it would be more realistic and significant to take as the base for any probable income tax an amount equal to about one-third of total income payments rather than the full amount of such payments.

But when we have obtained a tax *base* within gunshot of reality we still are not justified in applying a flat, *proportional* rate to that base, for the world in which we live believes in steeply *progressive* income tax rates. Further, if we are interested in the effects of tax rates upon investment and income, we must remember that most individuals who supply or use investment funds in significant amounts are those whose incomes are subject, at least in part, to the higher income tax rates. By way of illustration, let us again examine the 1942 figures. In that year the *effective* tax rate (*i.e.*, the ratio of total tax paid to net income reported) on all taxable returns was 13.27 per cent. But for all net income classes above \$5,000 the rate ranged between 16.95 per cent and 78.39 per cent.⁴ Yet, those are only *averages*; the ratios of total taxes paid to total net income. Actually, when an individual is considering a commitment of investment funds, it is the *marginal* or *top* tax rate which influences his decision because that is the rate which would apply to any *increment* which might accrue to him from the investment. In the 1942 example given above, the top or marginal rates would obviously be considerably higher than the *average* rates quoted.

I realize that Mr. Domar is concerned solely with the "tax rates" necessary to raise the funds required to pay interest. But in the real world governments must raise funds for other purposes. When the taxpayer receives his tax bill he is not concerned with how much of it must go to pay interest on the debt, and how much for other purposes; it is the *total* tax bill that is significant to him. And in considering the effects of tax rates required by debt service we must regard them as rates added on to the rates required to produce the revenue needed for other purposes; that is, as *marginal* or *additional* rates. This point certainly would become more and more critical as the *total* tax rate approached 100 per cent.

For the past 50 years or more governmental expenditures for purposes other than interest in the United States have been increasing at a rate considerably greater than the rate of growth of the national income. In view of that fact and in view of what we know about the demands which will be made upon the federal government in the post-war years, it would be conservative indeed if we should assume that in the predictable future the non-interest expenditures of that government would bear a fixed relation to the national income, say 10 or 12 per cent. This proportion should, if any degree of reality is to be attained, be taken as a starting point. It may be adjusted, if desirable, by deducting the revenue derived from sources other than the income tax. The adjusted figure should then be converted into a rough tax base in the manner described above. We should then be in a position to consider the *marginal* or *incremental* effects of adding changes in the tax rate to service the debt.

⁴ *Ibid.*

When several series of figures are calculated and expressed with precision, even as illustrations or assumptions, there is an implication that the quantities represented by those figures are significant and are reasonably close to what might be expected in practice. As ratios of debt interest to national income the figures given by Mr. Domar may have some significance, at least in the early years, but as tax rates they are utterly unrealistic and misleading. This is true because: (1) he assumes a tax base approximately three times as large as we may reasonably expect; (2) he assumes a proportional tax rate when we must logically contemplate progressive rates; and (3) he disregards the fact that the tax rates required by other expenditures must, for many years to come, be at least two or three times as large as the rates required for debt service. To attain any significance as tax rates the figures given by Mr. Domar for the beginning year would have to be increased by at least 500 or 600 per cent. Mr. Domar would, in short, have to take as a starting figure a rate about equal to that which, under his most unfavorable assumption, he computes we would reach only after 300 years.

The second variable in which Mr. Domar is interested is the national income. The first puzzling aspect of his treatment of this topic is that he does not anywhere indicate or assume any quantitative relationship between deficit spending and changes in the national income. Early in the paper he states that our discussions and national experience have demonstrated that "money income can be raised to any desired level if the total volume of public expenditures is sufficiently high" (p. 799). But he does not say how many dollars of income will be produced by a dollar of expenditure. Throughout almost all of his paper he proceeds on the assumption that the public debt will increase by 6 per cent of the national income each year. He then states five possible patterns or models for the behavior of income but he does not indicate which of them is most likely to result. Further, he does not state that *with deficit spending* we *will* have any one of them nor that *without deficit spending* we *will not* have any of them. At one place (p. 804) he does state that "it is more meaningful to express the growth of income in percentage rather than absolute terms, and a function with a constant percentage rate of growth will occupy the center of the discussion." Several, if not most, of his conclusions seem to be based upon this premise. Yet he states elsewhere (p. 819) that "In general it appears very unlikely that national income, or any economic series for that matter, can grow indefinitely at some constant percentage rate." Two pages further on he is even more emphatic when he says, "It is possible, or even likely, that, in spite of all these efforts, national income will grow at a *decreasing* percentage rate." (*Italics in original.*)

At one place (p. 804) when considering the assumption that national income remains constant in the face of continuing public deficits, he states, "But there is something inherently odd about an economy with a continuous stream of investment expenditures and a stationary national income." Yet on page 801 he demonstrates that, once income has been raised, it will, unless spending is continued, fall back to its old level, leaving the debt permanently higher. "This," he says, "is the source of the debt problem. If the national income is to be *maintained* at the new level, *new amounts* must be

spent." (Italics supplied.) Again, no amounts are mentioned, but according to this latter analysis it would not be at all odd or unusual for national income to remain constant when investment expenditures are being made steadily. Rather, in certain situations at least, such expenditures would be necessary merely to keep income from falling.

Without some kind of multiplier, either proven or assumed, we are, of course, free to make the wildest kind of assumptions concerning the benefits of deficit financing without any danger of being proven wrong. Evidently Mr. Domar assumes that such a multiplier exists and that it is positive, but I find it impossible to determine, even approximately, what its size is. Perhaps he means for the reader to assume a multiplier for himself. I do not know.

The second puzzling aspect of his treatment of national income is the relationship he assumes to exist between it and increasing tax rates. It should be obvious that, if the increasing tax rates (if they do increase) required to service an ever-increasing debt are "burdensome," the principal economic effects of that burden will be reflected in the levels of employment and income. Yet the author assumes (columns 3 and 4 of Table II and column 2 of Table III) that the same rate of increase in the national income as prevails in the first year is maintained straight on through in the face of ever-mounting tax rates. This assumes that tax rates have no effect on investment and income; that the private investor continues doggedly saving and investing his funds, not only after the trend of tax rates has definitely shown itself, but even after the tax rate is taking 99.9 per cent of his income. That would seem to be solving the principal problem at issue by assumption.

B. U. RATCHFORD*

* After serving as District Price Executive, Office of Price Administration at Raleigh during 1942-43, Professor Ratchford resumed his teaching duties at Duke University, where he is professor of economics.

The Burden of the Debt: A Rejoinder

I have a suspicion that Professor Ratchford did not understand the main argument of my article. It can be restated in the following manner:

Assumptions and Definitions:

1. It is assumed that private investment is insufficient to absorb all savings over a period of time and that government expenditures financed by borrowing are used as a method of achieving and maintaining full employment.

2. The average propensity to save is constant; national income equals the product of total investment expenditures (public and private) and the multiplier.

3. The government borrows on the average a constant percentage of national income, indicated by α .

4. A constant rate of interest, indicated by i , is paid on the debt.

5. The tax rate is defined as the ratio of interest charges to taxable income, the latter being equal to the sum of national income and interest receipts on the debt.

Conclusions:

1. If national income remains constant (Case 1) or rises at a constant absolute rate (Case 2), this tax rate will approach 100 per cent. Its growth, however, will be relatively slow.

2. If national income grows at a constant percentage rate indicated by r the tax rate will gradually approach a constant approximately equal to $\frac{\alpha}{r} i$,

3. With given α and i , the greater is the rate of growth of income, the lower will be the tax rate, even though a more rapidly rising income results in a larger absolute magnitude of the debt.

4. Over the period 1879-1929 real national income grew at about 3.3 per cent per year. There are good reasons to believe that, with sufficient expenditures devoted to scientific and technological research, national income can grow at 2 or 3 per cent per year for some time to come.

5. But whether national income will actually grow at this or any other rate depends on the behavior of monetary expenditures (unless a continuously falling price level can be assumed). If rising income is desired, expenditures (public and private) must grow at the desired rate.

6. Finally I concluded that less attention should be devoted to the problem of the debt and more to finding ways of achieving a growing national income.

Professor Ratchford's objections are essentially directed against three points: the tax rate; the multiplier; and the effects of taxes on investment.

The Tax Rate. Professor Ratchford objects to the definition given in (5) because the debt is likely to be serviced by income taxes, which (a) carry exemptions and (b) are progressive. I did not discuss the nature of the taxes which should be imposed to service the debt. It is of course well known that not all national income is subject to personal income taxation and that the latter is progressive. Depending on economic conditions and on one's views, this may indeed be an advantage, since the burden of the debt will then fall less heavily on low income groups. The use of the "tax rate" as an index of the relative debt "burden" is quite convenient and common, particularly for purposes of comparison;¹ this does not presuppose the exclusion of other indices, such as the behavior of the marginal tax rates. In any case, if Professor Ratchford finds my use of the phrase "tax rate" misleading, he can cross it out and substitute "the ratio of interest charges to national income (including interest receipts on the debt)."

There is no need to argue with Mr. Ratchford's figures. Two points should be noted, however. First, with any given exemptions, net taxable income as defined by the Internal Revenue Bureau rises more than in proportion to national income. Second, with any given ratio between net taxable and na-

¹ See, for instance, the *Report of the Committee on National Debt and Taxation* (Colwyn Report) (London, 1927), p. 66.

tional income, a given rise in net taxable income will produce a more than proportional increase in the yield from a given progressive income tax schedule. Therefore on both counts the yield from a given progressive income tax schedule increases percentage-wise more rapidly than national income. If the ratio of interest charges to national income remains constant while income rises, an actual reduction in the progressive tax schedule imposed to service the debt will be possible.

Professor Ratchford insists that interest on the debt is not the only item in the budget. The government has other expenditures for which taxes have to be imposed. Granted. But clearly the average level of these taxes will again depend on the ratio of the total tax bill to national income or some variation of it. Depending on the behavior of these other expenditures, there is little doubt that a rapidly rising income, even though propelled by deficit financing, will result in much lower tax rates than would be the case with a perfectly balanced budget and a stationary income. Like many opponents of deficit financing, Mr. Ratchford implicitly assumes that government borrowing will fail to raise national income above the level where it would be without such a policy. If this is so, government borrowing should not be pursued, whatever may happen to the debt "burden." It certainly makes little sense to discuss the results of any policy on the assumption that the policy itself will fail in the first place!

The Multiplier and the National Income. What puzzles Mr. Ratchford is not clear. It is explained on pages 801-802 and in footnotes 13 and 18 that investment expenditures are the independent variable the behavior of which, with a given propensity to save, determines the behavior of national income. This part of economic theory is too well known by now to have warranted a more lengthy discussion in my article.

As to the magnitude of the multiplier which Mr. Ratchford was unable to find, it is clearly stated on pages 801-802 and 803 that the propensity to save is assumed to be constant and equal to 12 per cent. Surely, once these facts are given, there can be no difficulty in figuring out what the size of the multiplier is. It would be more fruitful to inquire whether 12 per cent is a reasonable estimate of the secular propensity to save and what part of it will have to be absorbed by the government. Those who would like to reconstruct the tables on the basis of numerical assumptions different from mine can easily do so by referring to the Mathematical Appendix.

Mr. Ratchford further complains that I do not indicate which of the several patterns national income will follow and that I do not state "that *with deficit spending* we *will* have any one of them nor that *without deficit spending* we *will not* have any of them." This brings us back to the point already discussed. If it is believed that national income can follow any given pattern equally well with or without government borrowing, the latter is useless and its results need not be discussed. I do not advocate enlarging the public debt *per se*. But if the alternative is unemployment and if other measures are not available or not appropriate, then deficit financing has to be resorted to. The answer to Mr. Ratchford's quandary is obvious.

Similarly, I have no desire to predict the future behavior of national in-

come. As I said, real national income *can* grow at some 2 or 3 per cent per year for some time to come. But whether it actually *will* grow depends on our fiscal and other policies. If we are timid in our decisions and afraid of the debt, national income will probably fluctuate about some relatively low level, so that the "burden" of the debt, as described in Case 1, will indeed rise. But if, without fear of the debt, we pursue a bold policy directed at maintaining full employment, national income will grow, and the debt "burden" will never become serious. If the government definitely commits itself to such a policy and demonstrates sufficient determination in carrying it out, we may yet be surprised at the relatively small magnitudes of deficits which will be required. An assurance of a large and always *rising* national income is still the best method for encouraging private investment.

Taxes and Investment. I do not believe either that private investment will be undertaken with tax rates approaching 99.9 per cent. Case 2 and particularly Case 1 were given as examples of policies which should *not* be pursued. Together with the discussion on page 821, they show that if national income remains constant or rises at a falling percentage rate, while the government borrows a constant percentage of national income, it is impossible to pay a constant interest rate on the debt without running into ever-increasing tax rates. Of course there is nothing sacred about this interest rate. When national income fails to rise at a constant percentage rate it means either that productivity of investment falls off, or that unemployment develops, or that both events take place at the same time. Under any one of these conditions it should be possible to reduce the interest rate on the debt. Yet Mr. Ratchford, with all his concern for the debt "burden," disregards that possibility.² His only approach to the debt problem is through the restriction of government borrowing.

The effects of income taxation on investment are outside the scope of the present discussion; a brief remark may, however, be in order. Mr. Ratchford is perfectly sure that income taxes (and particularly progressive taxes) discourage investment.³ Again he sees only one solution—the reduction in tax rates. Actually the problem is much more complex.⁴ Other things being given, the tax reduces expected returns. But other things are not given: they are affected by the fiscal policies which the government pursues and by the ways in which the tax yields are spent. The return on an investment is essentially a compensation for the risk which the investor undertakes. Suppose the law provides for very liberal loss offsets. Will not the tax then reduce *both* the return and the risk?

The point I am making is that a reduction of income tax rates is only *one*

² See his "The Burden of a Domestic Debt," *Am. Econ. Rev.*, Vol. XXXII, No. 3 (Sept., 1942), pp. 451-67. In this paper Mr. Ratchford discusses all the ramifications of the debt problem including the rôle which the French national debt played in the fall of France.

³ *Am. Econ. Rev.*, Vol. XXXII, No. 3.

⁴ For a more detailed discussion of this question, see E. D. Domar and R. A. Musgrave "Proportional Income Taxation and Risk Taking," *Quart. Jour. Econ.*, Vol. LVIII, No. 3 (May, 1944), pp. 388-422.

of the several methods of encouraging investment—a method which in practice may often be difficult and undesirable to follow. It may well be more practical to approach the problem from the other side—by reducing the risk involved. Liberal loss offsets and perhaps loss sharing, loan insurance, greater freedom in depreciation policies—these are some of the methods for encouraging private investment which may be more feasible and promising than a substantial reduction in income tax rates.

It is regrettable that Professor Ratchford's criticism was not made on broader issues. The definition of the tax rate and the ascertaining of the size of the multiplier are surely not the most interesting points for discussion. I expected that objections would be raised against my assumption of a constant percentage rate of growth of national income—an assumption which can be justified for some limited period of time but of course not forever, and that a discussion of rates of growth possible in the future would ensue. This rate of growth of income, whether constant or not, appears to me as a most interesting subject with great theoretical possibilities: it is one of the variables and perhaps *the* variable, around which a dynamic economic theory should be built. The problem of our day is the problem of employment, which in an economy of our type is essentially a function of economic growth. It cannot be analyzed in static terms, in which most of our economic theory is still expressed; what is needed is a dynamic theory expressed in terms of growth. This is a relatively new and most fruitful field for further investigations.

EVSEY D. DOMAR*

*Mr. Domar is an economist with the Board of Governors of the Federal Reserve System. The views he expresses are his own and do not necessarily reflect the position of the Board.

United States Import Demand During the Interwar Period¹

Interested economists are in general agreement that by far the most important factor to be taken into consideration in estimating the post-war level of United States imports is the level of our real income. It can be shown that in the inter-war period (1922 through 1937), changes in real income accounted for most of the movement in the physical volume of imports. The closeness of the relationship between real income and imports is shown in Chart 1.

The fact that imports depend so much upon real income may be explained upon two grounds. First, a substantial part of American imports consists of raw materials,² for which the demand is determined by industrial output. In-

¹The writer is indebted to Messrs. Walter R. Gardner, Randall Hinshaw, Lloyd A. Metzler, and Wendell E. Thorne for advice in the preparation of the manuscript. However, he alone is responsible for the content.

²Which technically may take the form of finished or semimanufactured goods. *E.g.*,

dustrial output, in turn, is the most important component of real national income. Second, it is reasonably well established that consumption is closely related to the level of real income,³ and most imports are simply a special form of consumption.

Nevertheless, one also should expect to find that imports are governed not only by real income, but also by the price of foreign goods in relation to the price of domestic articles. The omission of the price factor in determining the physical volume of imports would amount to the statement that the demand for imports is completely inelastic with respect to relative prices—an assertion which certainly appears unwarranted.

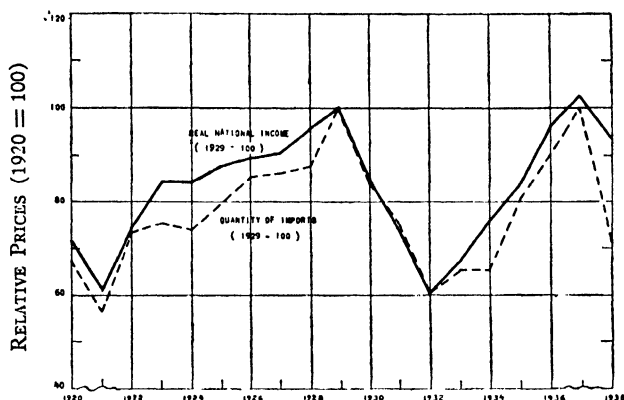


CHART 1

In the present study, an attempt has been made to relate the volume of imports to both real income and relative prices. Before presenting the detailed analysis, it might be helpful to summarize briefly the most important results. First, the total physical volume of imports cannot be related in a simple way to real income *and* relative prices. While real income may account for most of the variation in imports, the remaining variation does not seem to be explained by changes in relative prices. Second, it is believed that the failure of relative prices to account for a larger part of the remaining variation of imports (after allowing for the influence of real income) is due to the fact that tariff changes produced a downward shift in the demand for imports which was related neither to relative prices nor to income. Third, this conclusion is substantiated when duty-free goods are separated from dutiable goods, and a study is made of the demand for duty-free goods alone. The demand for duty-free goods is shown to be related closely to income and to relative prices,

paper and jute textiles are statistically finished goods; for all practical purposes they are raw materials used in the production of other goods.

³ Cf. Paul Samuelson's computation of the American consumption function in A. H. Hansen's *Fiscal Policy and the Business Cycle* (New York, Norton, 1941), pp. 250-60.

with no apparent downward shift after 1930—the date the tariff was revised upward. The results thus suggest that the change in tariffs at the beginning of the depression had a more restrictive effect upon imports than is commonly supposed.⁴

The Demand for Imports as a Whole

In the analysis of the demand for imports which follows, three time series have been used. The index covering physical volume of imports is the one computed by the Bureau of Foreign and Domestic Commerce. Second, real income is defined as money income (Department of Commerce estimates) divided by the Bureau of Labor Statistics index of the cost of living. (While this is only an approximation, it seems likely that the final results would not be significantly changed if some other income deflator were used.) Third, import prices, relative to domestic prices, are represented by the Bureau of Foreign and Domestic Commerce index of import prices divided by the Bureau of Labor Statistics index of wholesale prices in the United States. The wholesale price index is used as a standard of reference because almost all imports are wholesale transactions.⁵ Moreover, a large proportion of imports consists of raw materials which make up only a small part of the final product for which they are used. Since such raw materials reach the retail level only with a much diminished influence, a direct comparison of import prices with retail prices or with the cost of living would not be particularly meaningful. The index of import prices has been corrected to take account of the varying amount of duties paid by multiplying the import price index numbers by the value of imports plus duties, and dividing by the value of imports.⁶

The results of the statistical analysis are expressed in terms of the marginal propensity to import, the income elasticity, and the price elasticity of demand for imports. The marginal propensity to import is defined as the ratio of a change in the value of imports (corrected for price changes), to a change in national income at constant prices, with all other factors remaining unchanged. The income elasticity of the demand for imports is the ratio of the *relative* changes in the quantity of imports to *relative* changes in national income (at constant prices). The price elasticity of the demand for imports is the ratio of the relative change of the quantity of imports to a relative change in relative price (as defined above), with income held constant. A direct computation of income and price elasticities involves the use of logarithms. To avoid te-

⁴ Hal B. Lary and associates, *The United States in the World Economy* (Bur. of Foreign and Domestic Commerce, econ. ser. no. 23), p. 54.

⁵ A minor deficiency in the available data is that the prices of imported goods enter in the index of U.S. wholesale prices either directly (*e.g.*, rubber, raw silk), or indirectly as costs determining in part the price of goods in the production of which they are used. However, the quantities involved are believed to be sufficiently small, compared with the quantities of "all-American" goods, to permit the use of the index of U.S. wholesale prices as a measurement of movements of domestic prices.

⁶ If P = original price index, V = value of imports, and D = duties, the corrected price index $P_c = P \cdot \frac{V + D}{V}$.

dious computations, a short-cut method, which gives an approximation of the mean values of the income and price elasticities of all observed levels, has been used.⁷

If changes in the volume of imports in the inter-war period⁸ are compared with changes in real national income in a simple correlation, it is found that income changes account for 89 per cent of the variations of the import volume.⁹ The average income elasticity is .97. This implies that, within the range of observed real income, a 10 per cent increase in real income resulted in a 9.7 per cent increase in real imports. If relative prices are introduced to account for the changes in imports not explained by income fluctuations (in the form of a multiple correlation between the volume of imports, real income and prices), the results apparently confirm the previous findings, *i.e.*, that the volume of imports depends primarily and almost exclusively on the volume of real income. The coefficient of gross correlation is .948. The partial coefficient on real income is .946, while the partial coefficient on relative prices amounts to only —.31. That would mean that only 10 per cent of the variations remaining after taking account of income changes are explained by changes in relative prices. The regression coefficients of the estimating equation can be transformed in the following economic parameters: the marginal propensity to import is .038, the mean income elasticity 1.00, and the mean price elasticity .09.

The failure of the price factor to account for a substantial part of the variations in the volume of imports apparently is explained by a downward shift in the demand for imports which occurred after 1929, presumably as a result of the tariff changes in 1930. An indication of this downward shift is shown by a comparison of the two peak years 1929 and 1937. It is clear from Chart 1 that real income was higher in 1937 than in 1929. Despite this fact, the volume of imports was slightly lower in 1937 than in 1929. Moreover, this deficiency cannot be attributed to price effects, since import prices relative to domestic prices were actually lower in 1937 than in 1929. Thus both the movement of real income and the movement of prices between 1929 and 1937 should have increased the volume of imports in the latter year. The fact that imports were actually smaller in the latter year therefore substantiates the argument that a downward shift in demand occurred during the early thirties. The argument is further reinforced if the inter-war period is split up into two equally long periods (1922-29, and 1930-37). The statistical study of the first period shows an income elasticity of 1.16 and a price elasticity of .52. Both figures are significant because the coefficients of partial correlation on both, real income and relative prices, are relatively high (.94 and —.65, respectively).

⁷ The method is described in Note 1 of Appendix A.

⁸ Unless otherwise noted, annual data for 1922 to 1937 have been used. Years preceding that period are believed to be "abnormal" on account of the post-war distortion of supply and demand conditions. The data of the years after 1937 presumably reflect the disturbances of the period preceding the Second World War.

⁹ The complete statistical results are presented in tabular form in Appendix A; 0.89 (or 89 per cent) is the coefficient of determination (R^2).

The results apparently indicate that a lack of responsiveness of imports to relative price changes occurred in the period after 1929. This impression is borne out by computations pertaining to the period 1930 to 1937. As long as price effects are neglected the statistical results are still meaningful and appear to confirm the close connection between fluctuations in real income and the volume of imports. Income changes account for 93 per cent of the changes in imports. But the remaining variation cannot be explained by changes in relative prices since the statistical study indicates that only a negligible part of this variation is due to the price factor.¹⁰

The Demand for Duty-Free Imports

To test the hypothesis that the decline in demand was due to the tariff, imports are divided below into free and dutiable imports, and a study is made of the demand for free imports alone. This study has been made possible by the computation of quantity and price indexes for all commodities which were imported without duty during the inter-war period. The indexes have been derived by the same method and by the same formulas as those used in the construction of the indexes for total imports.¹¹ In order to eliminate the effects of shifts of commodities from the list of duty-free imports to dutiable imports, and vice versa, only those commodities have been used which have remained duty-free for the entire period under consideration. The quantity index of free imports differs from the index of total imports in one important respect. During the years of high real income in the thirties, duty-free imports attained a higher level than real income, while total imports fell below the "expected" level.

The quantity index of duty-free imports, together with the corresponding index of all imports, is shown in Chart 2. A comparison between the volume of free imports and of total imports indicates that dutiable imports and imports which were shifted from the list of free imports to the list of dutiables must have fallen below the volume which would be expected with a given level of national income at given relative prices. An index of the volume and of the prices of dutiable imports is not available. However, with the aid of the indexes of free and total imports an approximation of the quantity and price indexes for dutiable imports can be established.¹²

A comparison of the three time series (the volume of total, free, and dutiable imports) suggests rather strongly that the changes in the effective tariff rate during the period under consideration were largely responsible for the dissimilar behavior of free and dutiable imports. The tariff changes of 1921-22

¹⁰ Moreover, according to the statistical results, the quantity of imports rose with an increase in relative prices. In other words, the demand curve for imports would slope upwards and to the right.

¹¹ Fisher's "ideal index" which determines year-to-year changes which then have been linked into a chain index. As in the indexes for total imports, general imports were used until 1933, and imports for consumption thereafter. The indexes for free imports include more than 130 commodities.

¹² The derivation of the index of dutiable imports (shown on Chart 2) is described in Note 3, Appendix A.

and of 1930, and also in later years, caused a consecutively wider gap between the volume of free and dutiable imports (as defined above). If the years 1920 and 1921 are omitted as a period which was subject to "unsystematic" distortions of post-war adjustments, it appears certain that between 1922 and 1929 free imports and dutiable imports moved roughly parallel, while in the years after 1929 the gap between the two series was considerably widened. Between 1935 and 1937 dutiable imports appear to have recovered from the preceding depression even more rapidly than free imports. However, it is believed that this was the result of the droughts in 1934 and 1936 which

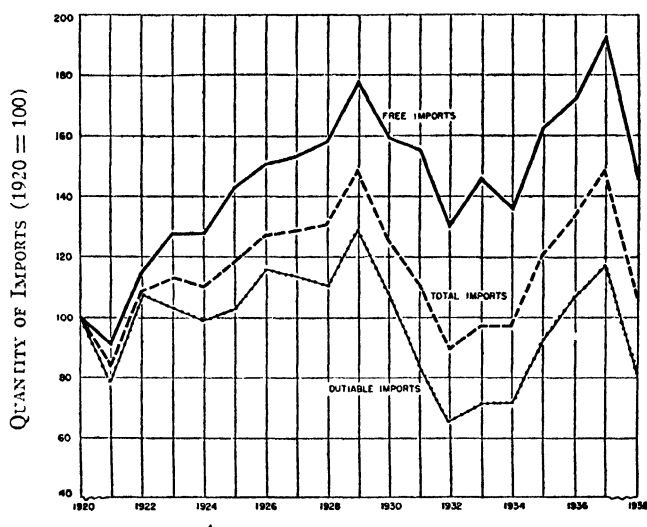


CHART 2

necessitated unusually large imports of corn, wheat, pork, animal and vegetable oils and fats, and food stuffs. Since practically all these imports are dutiable they do not affect the series of duty-free imports. The reciprocal trade agreements also may have contributed to the substantial increases in dutiable imports.

Attention must be called to the fact that not only changes in the tariff rates affect the volume of dutiable imports but that the effect of specific duties grows relatively stronger if the prices of imports fall. Thus, it is not surprising that the volume of dutiable imports was particularly low in the period from 1932 to 1934 when absolute and relative prices of imports were lowest. Occasionally it is argued that the tariff changes after the Fordney-McCumber act of 1922 did not greatly affect the volume of American imports because many duties were already prohibitive, or nearly prohibitive, and because the bulk of the tariff rates remained unchanged. While this assertion may hold true for many commodities, it appears that in some instances the imposition of duties and the reclassification of commodities have definitely caused a

decline in imports. For example, the removal of long-staple cotton from the free-list in 1930, and the imposition of a duty on petroleum and copper (except for refining and reexport) in 1932 have caused a substantial decline in the import of these commodities far in excess of the severe cyclical drop of imports experienced at the same time.

The general conclusion that the different behavior of dutiable imports was due to tariff changes and the heavier impact of specific duties may be challenged on three grounds. First, it may be argued that the income elasticity with respect to dutiables differs significantly from the income elasticity of duty-free commodities so that it is not the price effects (which are the form in which tariffs affect the volume of imports) but the income effects which caused the discrepancy between the volume of free and dutiable imports. But it is hard to substantiate the argument. If the income elasticity of dutiables were smaller than the income elasticity of free imports, the amplitude of the fluctuations of the dutiable imports would be smaller, *i.e.*, the demand for dutiables would be relatively low in good years, but relatively high in bad ones. It is apparent from Chart 2 that this is obviously not the case; the demand for dutiables during the thirties was relatively low in both good and bad years. Further, there is no significant difference in the composition of free and dutiable imports which would warrant any specific *a priori* assumption as to the relative magnitude of the income elasticities; both groups include "necessities" (with a low income elasticity), as well as "luxuries" (with a high income elasticity). A similar contention could be made if important changes in the composition of each of the groups could be observed so that the difference in the increment of free and dutiable imports could be accounted for by underlying changes in social habits, or industrial techniques. However, all major changes in underlying conditions appear either to have had no effect upon the total volume of imports, or the effects would increase the volume of dutiable imports. Among duty-free imports the most important change was the gradual decline of the demand for raw silk, but it was largely compensated for by an increase of wood pulp imports for the production of rayon. Among dutiable imports, the most discernible change, in addition to the above mentioned temporary disturbance of the drought, was the repeal of prohibition which resulted in the resumption of large imports of alcoholic beverages.

The third objection against the assertion that changes in tariff rates and the heavier impact of specific duties were responsible for the difference in the volume of free and dutiable imports could be raised by pointing out that in some instances the imposition or the raising of a duty (or the increase of the effective specific rates, due to falling prices) on one commodity may lead to a partial substitution of free imports for dutiable imports. For instance, an increase of duties on paper may lead to an increase in imports of pulp wood. In other words, a change of tariffs would cause a decrease of dutiable imports and at the same time an increase of free imports so that the volume of free as well as of dutiable imports is partly determined by the prevailing tariff level. This would mean that the volume of free imports during the late thirties was relatively larger than the volume of dutiable imports because, among other things, they were in part substituted for dutiable imports. With-

out denying the theoretical validity of the argument, it appears that the extent of these "substitution effects" can be minimized. Contrary to a frequently voiced contention that most raw materials are imported duty free and most finished goods pay a duty, a study of the American tariff indicates that many of the raw material imports as well as the imports of finished goods are impeded by tariffs. On the other hand, numerous finished goods are imported free of duty (*e.g.*, agricultural implements, works of art, products of the

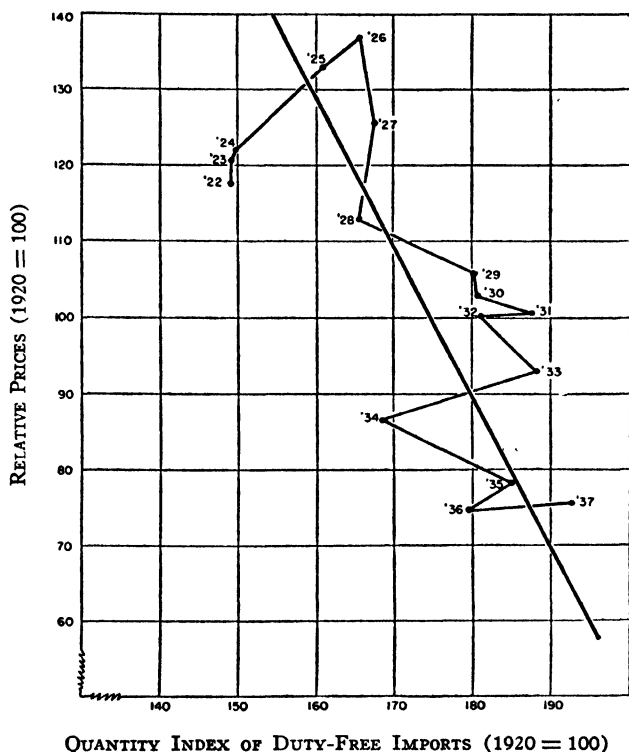


CHART 3

Philippine Islands, etc.). Moreover, the most important increases in tariff rates since 1930 were made on raw materials and crude foodstuffs. Thus, if any substitution of free for dutiable imports took place, it was presumably unimportant.

An indirect proof of the assertion that tariff changes accounted for the relative decline of total imports is the fact that changes in the volume of free imports are satisfactorily "explained" by changes in the real national income and relative price changes. If both factors are considered simultaneously, the following results are obtained: the income elasticity of free imports is .88, the price elasticity .31; the coefficient of gross correlation is .87, the partial coefficients on real income and relative prices .86 and $-.72$ respectively. From

the estimating equation¹³ a statistical demand curve for free imports can be derived. Such a demand curve for the level of real income of 1937, is shown in Chart 3.¹⁴

The question now arises why the method of statistical analysis does not give any meaningful results with respect to dutiable imports.¹⁵ There is a logical inconsistency in the fact that, on the one hand, the price elasticity of the demand for imports is smaller than unity, and that, on the other hand, the "misbehavior" of dutiables is attributed to changes in tariffs and tariff effects. Tariffs act upon the volume of imports by changing the prices of foreign commodities to the importer. If a protective tariff is to be effective and "useful" in the sense that domestic producers benefit by its imposition, then, close, or reasonably close, domestic substitutes for the foreign goods in question must be available. That means that within the "critical" range of prices, *i.e.*, at levels at which domestic costs approximate prices of corresponding foreign goods, the price elasticity of demand is high. (Only if the protective tariff is raised within a range where domestic producers are still unable to compete with imports, or lowered from one prohibitive to another prohibitive level, can the demand for dutiables remain inelastic.) The reason that the statistical evidence seems to contradict this expectation appears to lie in the fact that the effectiveness of tariff changes is determined by the relationship between the foreign and domestic cost of *specific* commodities and not by the comprehensive unit value indexes used in the statistical analysis. Besides, while a temporary increase in foreign prices may not be sufficient to induce the domestic production of a substitute, the imposition of an import duty with its normal expectation of permanency is more likely to bring forth domestic production. It follows, therefore, that although at a given level of import duties (and with small fluctuations of the prices of commodities with specific duties) the demand for imports may be inelastic, changes in tariff rates, even of the limited extent of the tariff changes of 1930 and later, are likely to exert a considerable influence upon the volume and value of imports.

Conclusions

If the foregoing analysis is accepted, the following conclusions can be drawn:

- (1) Duty-free and dutiable imports have shown a marked difference in their behavior during the period under consideration, which make it impossible to establish a constant relationship, suitable for extrapolation, between real income, relative prices, and the volume of total imports.

¹³ Shown in Appendix A.

¹⁴ The straight line is the graphical presentation of the estimating equation. The points in the scatter diagram, connected in chronological order, were derived from the simple correlations between free imports and real income, and relative prices and real income. The deviation of the observed values from the estimated values (on the basis of the simple correlations) were then related to the 1937 income level by subtracting the price and quantity deviation from the corresponding estimated value for 1937, and adding the deviations for each of the preceding years.

¹⁵ If the volume of dutiable imports is correlated with real income and relative prices, a positive price elasticity results.

- (2) Despite the apparent shortcomings of the statistical investigation, it seems reasonably certain that the income elasticity of American imports is close to unity; all estimates show numerical results around 1.0.
- (3) The price elasticity for duty-free imports is probably between .3 and .5.
- (4) As far as the effects of relative price changes on dutiable imports are concerned, no meaningful information can be established from the data available at present. Presumably a study of the relative cost structure in this country and abroad with respect to particular commodities and commodity groups would be necessary before any useful conclusions could be drawn.

J. HANS ADLER*

* Before joining the International Section of the Division of Research and Statistics of the Federal Reserve Board the author was research assistant at the Institute of International Studies of Yale University and instructor in economics at Oberlin College.

APPENDIX A

Statistical Results

Symbols: M' = Quantity of total imports, in index form (1935-39 = 100)

M = Total imports, in millions of dollars, at constant prices (1935-39 = 100)

M_f = Quantity of duty-free imports, in index form (1920 = 100)

Y = National income, in billions at constant cost of living (1935-39 = 100)

P = "Relative prices": price index of total imports, corrected for duties, divided by U. S. wholesale price index (1935-39 = 100)

P' = "Relative prices" of duty-free imports (1920 = 100)

R = Coefficient of gross (simple or multiple) correlation

r_Y = Partial correlation coefficient of imports on income

r_P = Partial correlation coefficient of imports on relative prices

m = Marginal propensity to import

E_Y = Income elasticity

E_P = Price elasticity

Estimating Equations:		R	r_Y	r_P	m	E_Y	E_P
1922-37:	$M = 2.995 + 1.592Y$	.942	—	—	.0371	.968	—
	$M' = 70 + 37.06 Y$						
	$M = 8.233 + 1.652Y - .0712P$	.948	.946	-.310	.0385	1.005	.092
	$M' = 192 + 38.47 Y - 1.658 P$						
1922-29:	$M = -10.779 + 1.800Y$	.906	—	—	.0419	1.111	—
	$M' = -251 + 41.92 Y$						
	$M = 35.019 + 1.857Y - .357 P$	.947	.945	-.647	.0432	1.157	.517
	$M' = 816 + 43.25 Y - 8.32 P$						
1930-37:	$M = 3.263 + 1.610Y$	.963	—	—	.0375	.964	—
	$M' = 76 + 37.49 Y$						
	$M = -19.648 + 1.601Y + .237 P$	.971	.970	*	.0375	.964	*
	$M' = 457 + 37.48 Y + 5.51 P$						
1922-37:	$M_f = 64.912 + 2.317Y - .513 P$	.866	.860	.715	^b	.884	.308

* The result indicates a positive instead of a negative relationship between quantity and price.

^b Since the value of all duty-free imports is not available, the marginal propensity to import cannot be derived.

Note 1. The approximation of the income elasticity is derived as follows:

$$E_Y = \frac{\frac{dM}{M}}{\frac{dY}{Y}} = \frac{dM}{dY} \cdot \frac{Y}{M}.$$

$\frac{dM}{dY} = b_{12}$ in the simple, and $b_{12.3}$ in the multiple correlation. If b_{12} or $b_{12.3}$ is multiplied by $\frac{\bar{Y}}{\bar{M}}$, a measurement of the income elasticity, pertaining to the mean range of the observations included in the computations, results.

Similarly,

$$E_P = \frac{\frac{dM}{M}}{\frac{dP}{P}} = \frac{dM}{dP} \cdot \frac{P}{M}; \quad \frac{dM}{dP} = b_{13.2}.$$

Thus,

$$E_P \text{ (for the mean)} = b_{13.2} \cdot \frac{\bar{P}}{\bar{M}}.$$

Note 2. The approximation of the indices of dutiable imports has been obtained in the following fashion: The value of all commodities included in the indices of free imports has been deducted from the value of total imports. Since the indices of free imports do not comprise all free imports but only a large (and representative) sample of about 70 per cent, the indices for dutiable imports actually are indices for "imports not included in the indices for free imports." On the basis of the argument that the indices of total imports must be the average of the index numbers of free and dutiable imports and because the value of the commodities included in the indices of free imports amounts on the average to 50 per cent of the value of total imports, a first approximation of the indices (price and quantity) of dutiable imports was obtained

$$P_T = \frac{P_F + P_D}{2}; \quad P_D = 2P_T - P_F, \quad \text{also} \quad Q_T = \frac{Q_F + Q_D}{2}; \quad Q_D = 2Q_T - Q_F$$

in which P stands for price, Q for quality, and the subscripts T , F , and D for total, free, and dutiable imports, respectively. The results were then corrected to make them conform to the condition implied in the "ideal index," that price times quantity equals value. The difference between the product of price times quantity of the first approximation and the corresponding index number of the value were distributed proportionately—a confessedly arbitrary procedure. The resulting indices for dutiable imports should be interpreted with caution. However, they are believed to serve the purpose of establishing a crude approximation.

APPENDIX B
Statistical Data

TABLE I

Year	(1) Value of Imports ^a in Millions of Dollars	(2) Value of Duty-Free Imports ^b	(3) Quantity of Total Imports (1920=100) ^c	(4) Quantity of Duty-Free Imports (1920=100)	(5) Quantity of Dutiable Imports (1920=100) ^d
1920	5,278	1,761	100	100	100
1921	2,509	971	84.1	91.7	79
1922	3,113	1,241	109.1	115.4	108
1923	3,792	1,592	112.5	127.7	103
1924	3,610	1,585	110.2	127.9	99
1925	4,227	2,100	118.2	143.0	103
1926	4,431	2,214	127.3	150.3	116
1927	4,185	1,985	128.4	153.5	114
1928	4,091	1,933	130.7	158.3	111
1929	4,399	2,053	148.9	177.4	129
1930	3,061	1,454	126.1	159.2	108
1931	2,091	1,049	111.4	153.3	84
1932	1,323	694	89.8	130.2	66
1933	1,450	769	97.7	146.3	72
1934	1,636	822	97.7	136.9	72
1935	2,039	989	120.5	162.7	93
1936	2,424	1,146	134.1	172.2	107
1937	3,010	1,490	148.9	192.3	117
1938	1,950	970	106.8	146.2	82

^a General imports until 1933; imports for consumption thereafter. The quantity and price indices compiled by the Bureau of Foreign and Domestic Commerce pertain to these value figures.

^b Value of imports included in the quantity and price indices of free imports. The indices account for approximately two-thirds of imports which remained duty-free during the entire inter-war period.

^c Shifted from original base 1923-25=100; computed by Bureau of Foreign and Domestic Commerce.

^d For explanation of this index which represents a rough approximation only, see Appendix A.

TABLE II

Year	(1) Unit Value (Price) of Total Imports (1920 = 100) ^a	(2) Unit Value (Price) of Duty-Free Imports (1920 = 100)	(3) Unit Value (Price) of Dutiable Imports ^b (1920 = 100)	(4) U.S. Whole- sale Prices (1920 = 100) ^c	(5) Cost of Living Index ^d (1935-39 = 100)	(6) U.S. National Income (in billions of current dollars) ^e	(7) "Real" National Income (in billions of 1935-39 dollars) ^f
1920	100	100	100	100	143.2	69.7	48.7
1921	56.8	60.1	55	63.2	127.7	52.6	41.2
1922	54.2	61.1	49	62.6	119.7	60.4	50.5
1923	63.9	70.3	61	65.2	121.9	80.0	57.4
1924	61.9	69.4	58	63.5	122.2	70.0	57.3
1925	67.7	82.2	59	67.0	125.4	74.6	59.5
1926	65.8	82.9	54	64.8	126.4	76.8	60.8
1927	61.3	72.6	55	61.8	124.0	76.2	61.5
1928	59.4	67.7	55	62.6	122.6	80.1	65.3
1929	56.1	64.1	52	61.7	122.5	83.3	68.0
1930	45.8	50.5	44	56.0	119.4	68.9	57.7
1931	35.5	37.8	35	47.3	108.7	54.5	50.1
1932	27.7	29.4	27	42.0	97.6	40.0	41.0
1933	27.7	29.0	27	42.7	92.4	42.3	45.8
1934	32.3	33.0	32	48.5	95.7	49.5	51.7
1935	32.3	33.6	32	51.8	98.1	55.7	56.8
1936	34.8	36.6	34	52.3	99.1	64.3	65.5
1937	38.7	42.3	37	55.9	102.7	71.5	69.6
1938	34.8	36.2	34	50.9	100.8	64.2	63.7

^a Shifted from original base 1923-25 = 100. (Bureau of Foreign and Domestic Commerce.)

^b See footnote ^d of Table I.

^c Shifted from original base 1926 = 100. Source: Statistical Abstract of the United States, 1941, p. 354.

^d Cost of goods purchased by wage earners and lower-salaried workers in 34 larger cities combined. Source: Statistical Abstract of the United States 1941, p. 360.

^e Department of Commerce estimates.

^f Column (6) divided by Column (5).

J. HANS ADLER

Cost Accounting and Statistical Cost Functions

Several writers¹ have expressed some dissatisfaction with the results of the cost studies which have been made by Messrs. Joel Dean² and Theodore

¹ See Reinhold Noyes, *The Relation of Cost to Output in a Leather Beltshop*, Section II (New York, Nat. Bur. of Econ. Research, Technical Paper No. 2, 1941); Hans Staehle, "Statistical Cost Functions—Appraisal of Recent Contributions," *Am. Econ. Rev.*, Vol. XXXII, No. 2 (June, 1942), pp. 321-33; Caleb Smith, "Cost Output Relation for U. S. Steel Corporation," *Rev. Econ. Stat.*, Vol. XXIV, No. 4 (Nov., 1942), pp. 166-76.

² Joel Dean, *The Relation of Cost to Output in a Leather Belt Shop* (New York, Nat. Bur. of Econ. Research, Technical Paper No. 2, 1941); and Joel Dean, *Statistical Cost Functions of a Hosiery Mill* (Chicago, Univ. of Chicago Press, 1941).

Yntema.³ The linear cost functions found in their cost studies are frequently attributed to linear biases inherent in the statistical techniques employed in processing the data. It is not intended in this note to deny or affirm the validity of these contentions about the statistical methods used; but it is intended to show that the data employed were such as to give a bias in favor of linearity.

I

The chart on page 240 of Yntema's U.S. Steel study⁴ shows a linear cost function. This function was computed from data to which no statistical corrections had been applied. The chart on page 251 of the U.S. Steel study shows the same data after statistical processing. The only observable changes are a reduction in dispersion and a change in slope. This would seem to indicate that these data, obtained from the cost accounting records of U.S. Steel, tended toward linearity. That a linear bias does exist in cost accounting data can be best illustrated by a hypothetical case.

Suppose that a manufacturer uses a pure standard cost system in his cost ledgers. Fixed charges (*i.e.*, standard costs) for labor, material and overhead would be placed on the cost ledgers for each unit of output produced during the month (or accounting period) regardless of the level of output. Any variation from these standard costs would be put in a variance account. The balance remaining in the variance account at the end of the year would appear in "other deductions from income" on the annual profit and loss statement.⁵

Out of such data, nothing but a linear cost function could possibly emerge, because the cost ledgers would show constant unit cost which is equivalent to cost directly proportional to output (or a linear cost function).

Generally, accountants do not use a pure standard cost system such as the one described above, but the method of distributing a large part of the total cost is analogous. Overhead and administrative cost which represent an ever-increasing part of total costs,⁶ and in some cases represent over half of all costs, are usually distributed by accountants in a linear fashion.⁷ To escape from these (and other) difficulties Yntema froze such figures as interest and depreciation. Dean, on the other hand, eliminated similar charges (*e.g.*, administrative costs in his leather beltshop study).

II

Because such an important part of the costs was either frozen or distributed linearly in these studies, it appears to be possible that significant elements of

³ Theodore Yntema, *U. S. Steel Corporation*, T.N.E.C. Papers, Vol. I.

⁴ *Ibid.*

⁵ J. J. W. Neuner, *Cost Accounting* (Chicago, Irwin, 1940), p. 489.

⁶ F. C. Mills, *Prices in Recession and Recovery* (New York, Nat. Bur. of Econ. Research, 1940), p. 328.

⁷ That is, a fixed overhead charge per unit of output or per labor dollar. (Note that labor dollars are frequently a standardized cost.)

cost variation have been smeared into linearity, to the point where the results begin to lose their meaning as total cost functions.

It is of the essence to remember that the accountant's conception of overhead cost is not identical with the economist's conception of overhead cost (*i.e.*, supplementary costs).⁸ The accountant includes not only "supplementary costs" in overhead but also any other costs which cannot be distributed with ease and/or economy.⁹ It is this accountant's mixture of variable and fixed costs which seems to be responsible at least in part for the linear cost functions.

III

Although the results obtained in these studies do not conform precisely to neo-classical conceptions of cost functions, it is not intended to state here that the results of the statistical cost studies are theoretically incorrect. It seems to be quite likely that many cost functions are linear within the relevant ranges of output, becoming curve-linear upward only when capacity is approached. But it does not seem safe to assume that the results of these studies confirm that hypothesis. Accounting data with their hazy rubrics and linear biases seem incapable of producing anything but a linear cost function.

It perhaps goes without saying that when one studies cost functions one gets into an area of expectations with its unpleasant companions, uncertainty and indeterminateness.

EVERET STRAUS*

* The author is an economist in the Antitrust Division of the Department of Justice. The opinions he expresses are his personal views and should not be construed as those of the Department.

The Hours of Work and Full Employment

The prospects for maintaining substantially full employment at a standard 40-hour week in the post-war years must be regarded as dubious, if not downright poor. This is the clear implication of the final paragraphs of the careful study by Hagen and Kirkpatrick.¹ They conclude, albeit in guarded terms, that we shall enjoy continued full production and full employment only by grace of "fortuitous good fortune" or by "extremely wise social engineering."

⁸ J. M. Clark, *Economics of Overhead Cost* (Chicago, Univ. of Chicago Press, 1924), pp. 175-203.

⁹ R. F. Harrod, "Price and Cost in Entrepreneur's Policy," *Oxford Econ. Papers*, No. 2. In the investigations conducted at Oxford it was found that "... direct cost often excluded a number of charges which would properly rank as prime costs; and there was often an arbitrary or conventional element in the process by which 'on cost' per unit was deducted from total overheads."

¹ "National Output at Full Employment in 1950," *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), at pp. 494, 495.

Neither of these aids can be counted upon—the second perhaps less than the first.

The doubts of Hagen and Kirkpatrick are shared by many others.² We thus find ourselves in the following awkward dilemma:

A. High-level employment is a paramount necessity in the post-war world. (Hagen and Kirkpatrick say categorically that without it democracy cannot survive.)

B. Full production—*i.e.*, the output of full employment at standard hours—will probably not be sustained in the future, as it has not been in the past generation. We are more likely to repeat the experience of 1940, which combined a record high in national output with large-scale unemployment.

Because full production is clearly the best means of attaining full employment, it is natural to fasten our attention exclusively upon it. But if full production in peacetime is so difficult to maintain that there is great danger of our failing in the attempt, then simple prudence requires that we explore all alternative roads to high-level employment.

When viewed arithmetically the number of unemployed is readily seen to depend on four independent³ factors, of which the level of gross output is only one. The formula, on an annual basis, is quite simple, *viz.*:

$$\text{Number of Employed} = \text{Labor Force} - \frac{\text{Gross Product}}{\text{Average Output per Hour} \times \text{Average Hours Worked per Man-Year}}$$

Assuming that at a given time this equation shows a substantial number of unemployed, the quantity can be reduced by changing any one of the four factors on the right-hand side—*i.e.*, (a) by increasing gross product, or (b) by decreasing the labor force, or (c) by decreasing output per hour, or (d) by decreasing the hours of work.

There are thus three mathematical approaches to full employment in addition to the obvious one of full production. Of these, decreasing the labor force is more important theoretically than in practice. It is true that the percentage of our total population seeking work has moved counter to its logical direc-

² Cf. the calculations in *Business Week*, Oct. 25, 1944, pp. 9, 10; conclusions of L. L. Schellbach, editor, Standard and Poor's Trade Service, in *N. Y. World-Telegram*, Sept. 9, 1944, p. 11; statement in *The Kiplinger Letter*, Sept. 12, 1944, that labor is expecting large unemployment after the war; etc.

³ "Independent" is used here in the sense that one factor is not *determined* by the others; hence, it is possible to reduce the number of unemployed, on an over-all basis, by changing any one of the four factors separately. As Professor Yoder points out in his appended note, a change in one factor may produce partially offsetting or intensifying changes in others, so that the relationship between unemployment and the size of each factor may be curvilinear rather than rectilinear. This circumstance poses one of several technical problems of control, but it does not affect our broad conclusions.

tion; for it has been increasing moderately in recent years, whereas the growth of our wealth and living standard should have permitted a larger percentage to abstain from work.⁴ But the steps that might be taken to correct this condition are either fiscally unsound, or else they would meet with such bitter opposition that their minor contribution to reducing unemployment would scarcely be worth the trouble.⁵

The solution by means of reduced output per hour makes arithmetical but not practical sense. Instead of this recourse, it is obviously more rational to maintain efficiency and reduce the work-week. It is well to recognize, however, that *because workers have not been able to depend upon other solutions of the unemployment problem*, they have perforce been receptive to the *ca' canny* philosophy. We should not blink the fact that, regardless of its long-run benefits, our increasing manhour productivity has constantly aggravated the *current* difficulty of maintaining full employment. To the extent that this proves true in the future the perverse doctrine of consciously holding back production is certain to make headway among workers.

The remaining approach—reduction in the hours worked—deserves far more careful attention than it has received. Because it is equivalent to a share-the-work philosophy it is viewed with hostility as defeatist and summarily dismissed. This attitude is quite illogical. Granted that full employment at a 35-hour week is less desirable for the nation than full employment at a 40-hour week, it does not follow at all that full employment at 35 hours is worse than seven-eighths employment (7 million unemployed) at 40 hours. Furthermore, shorter working hours have always followed naturally from increased productivity. Since higher output per manhour is expected in the future—and, in fact, creates the menace of post-war unemployment—it would be natural rather than defeatist to accept its corollary of still shorter hours. These are more truly the fruits of technological victory.

It is neither necessary nor desirable for a sound economy that hours of work should decline *pari passu* with increase in productivity. But this inverse ratio clearly indicates the outer *limit* of admissible adjustment to rising output per manhour. The indicated principle is a simple one. To the greatest extent permitted by patterns of consumption, let us take our gain from increased productivity in larger output and better living standards. To the extent this is not feasible, let us take the balance of our gain in shorter hours. (Failing that, we shall take it in unemployment, and the "gain" becomes a tragic loss.)

This principle may readily be applied quantitatively to the figures of Hagen and Kirkpatrick. Their median forecast for full employment in 1950 on a 40-hour basis is a gross output of 146.5 billion dollars *versus* 87 billions in 1939. (Both figures are in 1939 dollars and exclude interest on federal debt.) Of this total gain of 67 per cent, just about half would be due to more workers

⁴Actual percentage of population in the labor force was 37.3 per cent in 1900, 39.5 per cent in 1920, 40.1 per cent in 1940. (*Stat. Abstract*, 1942, pp. 56-57.) Hagen's and Kirkpatrick's estimate of a 60,000,000 labor force in 1950 works out at 42.6 per cent of the projected population.

⁵Obvious examples are the Townsend Plan and job discrimination against women with husbands working. The immigration quotas adopted in 1921 and 1924 were largely motivated by a similar purpose.

and half to higher average productivity. It follows that, if we are willing to accept 1939 as a floor, we should be prepared to adjust our economy to any going level of gross output, as here defined, between 116 billion dollars and 146 billions, maintaining substantially full employment at any such level by suitable adjustments of the work-week.

This means that *at the minimum* we should not fall below the 1939 annual output per worker (attained in 1950 at a 30-hour week), but at that minimum we should have only 2 million "frictionally" unemployed, instead of 10 million as in 1939. Nothing in this arrangement would prevent us from aiming at the maximum gross product of 146 billions, or more, which would permit full employment at a 40-hour standard week and an increase of one-third in the average output and real earnings of all workers. Nor would an intermediate adjustment of working hours, say to a 120-billion-dollar product, interfere in any way with a later enlargement of both product and work-week to the maximum figure.

The main purpose of this approach is to introduce an element of flexibility, or a "relaxation principle," into our post-war economy, so that our democratic institutions will not have to stand or fall on our ability to maintain a real national product 67 per cent higher than in 1939. The mechanics of adjusting the work-week to the going rate of national product involves various problems, and no technique may be expected to do it perfectly. But a fair approximation may be achieved by the use of relatively simple and familiar devices of control. The fundamental need here is for agreement between leading employers and labor unions on the basic principles of flexibility—and upon the related wage policies.

The question of wages presents the chief obstacle to the effective use of the hours-of-work approach to full employment. The announced attitude of the unions is that shorter hours must be accompanied by a corresponding rise in the hourly rate. As a result, employers are vehemently opposed to the "share-the-work theory" because they see in it only a lever to raise their wage costs. This familiar conflict of interest over hourly rates should not be permitted to render useless a valuable tool of economic adjustment, the intrinsic merits of which are quite independent of wage controversies. Here is an area in which joint policy making by leaders of labor and of business can contribute greatly to the avoidance of mass unemployment.

There is a patent absurdity in the prevalent view that our increased productive powers must bring us either dazzling prosperity or devastating unemployment after the war. One would think that we were about to leave our familiar world of compromises and were almost literally heading for an economic heaven or hell—without knowing which. The bald choice being offered us would be a particularly unhappy one if, as seems probable, the ideal of sustained full production may prove unattainable. Economists should ponder the wisdom of having at least two strings to the bow of high-level employment, the first being full production and the second being flexible hours of work.

BENJ. GRAHAM*

* The author is president of Graham-Newman Corporation and lecturer on security analy-

Comment on Mr. Graham's Note

There is little room for serious disagreement with the thesis that working hours represent one of the several controls on output. Moreover, there is good reason to stress and emphasize the desirability of a well-considered use of this control as a counterbalance opposed to unemployment, which is also an obvious control over output.

There is, however, a serious deficiency in Mr. Graham's analysis. That deficiency stems from one of the stated premises upon which the whole analysis rests. It represents an error in the formula described by Graham as determining the volume of employment. Graham states that "the number of unemployed is readily seen to depend on four *independent* factors" (*italics mine*). These four are the labor force, gross product, average output per hour, and average hours worked per man-year. The conclusion is reached that, of these variables, that which can be controlled and when necessary reduced with least injury to the nation's social, political, and economic systems is the last, that is, average hours. In effect Graham concludes that hour reduction is a desirable alternative to something less than full employment and that the one is a simple substitute for the other.

The necessary resort to averages in such equations is probably responsible for at least part of the confusion that results in regarding these factors as independent. Because it is always easier to think of averages as typical, implications of such oversimplified relationships are also conceived and stated in terms of a general or average result. Thus, popular understanding of Graham's suggestion would unquestionably conclude that unemployment could be rather simply eliminated by a sort of nation-wide sliding scale of working hours, in which hours were reduced throughout industry whenever unemployment showed signs of increasing and, presumably, hours were expanded whenever there was prospect of manpower shortage. During the war, popular acceptance of this level of understanding is implicit in the imposition of the minimum wartime work-week of 48 hours by the War Manpower Commission. As hours were extended, output was expected to show a proportionate increase. The natural expression of such understanding in peacetime would be an extension of the Fair Labor Standards act to include provision for further control of hours as dictated by supplies and demands in labor markets throughout the nation.

The basic shortcoming in all such analysis lies in the fact that two of the variables mentioned as independent are not independent. Output per hour and average output per hour also are not unrelated to the number of hours worked. The hourly output of individual workers and of industrial units as a whole varies appreciably with variations in the numbers of daily or weekly working hours, so that variations in the pattern of working hours may have effects quite different from those forecast on the assumption that the volume of output will reflect directly the number of hours worked.

The most spectacular aspects of this relationship are perhaps to be noted in the experiences of several concerns during the depth of the depression in the early 1930's. In a number of cases, hours were reduced to reduce output, but

production per hour increased in greater proportion than the reduction in hours. There are rather obvious explanations, among them the fact that many employees, compensated on piece-work or incentive wage bases, sought to maintain weekly earnings. More important, however, is the fact that the reduced hours, in some cases, represent a more efficient method of utilizing the human factor in production.

These are, however, only the more spectacular evidences of the relationship between hours of work and output. In many other instances, a somewhat less striking result of reduced hours has been a much greater, disproportionate, reduction in output. That is not as spectacular primarily because it confirms entrepreneurial expectations. If management assumed it would get more output per hour from shorter work-days or work-weeks, it would, in times when manpower is readily available, be forced by competitive demands for efficient use of manpower to move toward the more productive work-day or work-week.

It follows that, unless it be assumed that management is oblivious to this relationship between length of work-day or work-week and hourly output, and unless these competitive forces have not been effective, there is a continuing economic pressure in competitive industry toward that length of work-day and work-week which is most efficient. The long-run tendency must be assumed to operate in a manner that makes such a disposition of manpower in terms of its efficient utilization as to secure maximum hourly output consistent with continued day-to-day and year-to-year use of the labor factor.

To the extent that this tendency is effective, any arbitrary reduction in hours undertaken to reduce output would obviously tend to have a greater than proportionate effect on output. It might be expected to fall short of its objective because, resulting in less efficient operation and higher costs, it would further reduce consumption, production and employment.

Output per hour is not a fixed, unvarying, and isolated factor in the formula for employment. The relationship between hours of work and output is real. That relationship is not necessarily rectilinear. Nor can society be assumed to be ignorant of the curvilinear nature of this relationship. Programs designed to alleviate unemployment by controlling hours of work must, therefore, clearly recognize these limitations.

DALE YODER*

* After service as public member and vice chairman of the National War Labor Board, Region VI, Chicago, the author has resumed his position of professor of economics and industrial economics at the University of Minnesota.

Correction

We regret that the letter "l" was omitted in printing the name of Professor George N. Halm in a footnote on page 81 of the March number.

BOOK REVIEWS

Economic Theory; General Works

Economics Is an Exact Science. By JEROME LEVY. (New York: New Econ. Library. 1943. Pp. xv, 503. \$3.50.)

This book, a very difficult one to review, compares the economic system to a "machine" consisting of the following parts: the working class, the investing class, the money-lending class, land, the consuming class, profits, the monetary system, taxes, self-interest, the government. The terms are not always used in the established economic sense. The relationships contemplated in a sort of *tableau économique* are all assumed linear.

Another part of the book deals with "just" wages, "just" profits, the efficient functioning of land, consumption, money, taxes, and profits. There is not much indication of the general social philosophy on which the "justice" is based. In some parts of the book it appears that the author is a sort of single taxer.

This book is evidently written by somebody ignorant of all but the most primitive economics and of the fundamental problems involved in economic policy. I cannot see that it establishes economics as an exact science nor that it contributes anything in any way. It is astonishing that it should have been written and nothing short of amazing that it could find a publisher, especially at the time of an acute paper shortage.

GERHARD TINTNER

Iowa State College

National Economies

China Enters the Machine Age. By KUO-HENG SHIH. (Cambridge: Harvard Univ. Press. 1944. Pp. xxiv, 206. \$2.50.)

The purpose of this monograph is twofold: to trace the sources and backgrounds of industrial manpower in Free China, and to examine, in terms of the attitudes and aspirations of the industrial workers, the changes that industrialization is bringing about in the traditional structure of the social order. The inquiry is described as a "laboratory experiment," covering a single government-owned and operated factory in Kunming, which "does not regard profit making as its sole concern" and produces electrical supplies, thus requiring comparatively high types of skills. The author adds that the factory

"is the second largest in Kunming, and it is known for its sound management." Such a factory cannot reasonably be regarded as typical of the interior of China, and this fact clearly delimits the validity of the study.

Actually, the author points in the right direction, when he states that "as compared with other difficulties, such as lack of capital, communication and supply of raw materials, it seems that [the lack of sufficient trained industrial workers] may become a bottleneck." From this standpoint, the monograph is a definite and valuable contribution to an understanding of what is involved in a rapid transition from an agricultural to an industrial economy. In ten chapters, the author discusses the geographic and economic backgrounds of laborers and the social relations between immigrant skilled workers from old industrial centers and local semi-skilled or unskilled workers, the psychological reaction of new workers to factory life and their relative working efficiency, the wage levels and workers' budgets, the social environment and morale, and the causes of labor instability. The monograph gives indication of a critical lack of political and social consciousness on the part of the workers, without any effort being made by the management or the government to arouse it. The traditional concept that "skill implies secrecy" dominates the atmosphere of the factory. The managerial, skilled, semi-skilled and unskilled groups are strictly separate, and the paternalistic set-up, with different quarters and facilities for the various groups, tends inevitably to consolidate their relations along the lines of a closed caste system. At present, this system is an effective barrier against an efficient utilization of China's manpower resources for industrial and war purposes. The problem is likely to grow in intensity after the liberation of the occupied provinces, when China will be called upon to provide the masses of skilled and semi-skilled labor necessary for manning and operating the industries of the coastal areas and Manchuria. This monograph raises fundamental issues of labor training and management, which are strikingly absent from the many plans of post-war industrialization which have so far come out of Chungking.

FRANK M. TAMAGNA

New York

The Indian Rural Problem. By SIR MANILAL B. NANAVATI and J. J. ANJARIA. (Bombay: Indian Soc. of Agric. Econ. 1944. Pp. vii, 422. Rs. 8, or \$3.00.)

This is the first study of the newly organized Indian Society of Agricultural Economics under the presidency of Sir Manilal B. Nanavati. The Society plans to issue a series of general monographs on the rural problems of the different Indian provinces and states which will provide factual material and interpretation for both the scholar and the lay reader. The object of the present study is to review the Indian rural problem in its varied general aspects so as to enable the reader to visualize the problem as a whole and to sketch out a general line of policy which the state must follow.

It is well known that India is predominantly agricultural and that 87 per cent of the Indian population is classified as rural. More than 285 millions out of a total of more than 400 millions depend on agriculture for their meagre livelihood. These agriculturists are composed of widely different groups. There

are big landowners and titled persons, some whom possess estates as large as some small European states. There are intermediaries who live in luxurious urban villas on incomes derived from land which they seldom visit or take interest in, except to collect the money as typical absentee landlords. Then there are peasants who own plots of land and are physically engaged in its cultivation. Finally, there are millions of landless laborers who work on the land for incredibly low wages. The last two constitute the real agricultural population of India. It is these classes that produce the country's food, raw materials and primary products and thus constitute the backbone of the national economy. And it is the problems of these peasants and agricultural laborers which constitute the Indian rural problem.

The Indian peasant is born in debt, lives in debt and is buried in debt. So great is Indian rural indebtedness that it has been the subject of numerous official inquiries for more than a generation, but no one has heard of any redress. The farm laborer's average daily wage is less than six cents. His shelter is a thatched hut in a village remote from modern civilization and devoid of even the most elementary requisites of modern hygiene and sanitation. If he is not a chronic sufferer from some disease, he is an exception. The food he consumes is the coarsest and the least nutritious, making him a victim of malnutrition. The inadequacy of his clothing can be seen from the fact that the annual per capita consumption of textiles for the country as a whole is only 16 yards. Whatever the view taken, the Indian peasant occupies the lowest rung of the ladder. There is no organization to champion his cause and no "farm bloc" to plead for him in India's legislatures.

The average size of the Indian holding is about 2.5 acres. With such low acreage the use of fertilizer is unknown. Mechanization of agriculture is impossible. Lack of scientific breeding of cattle and the preservation of unwanted cattle (for religious reasons) have made Indian bovine wealth (India has a third of the world's total cattle population) a source of unprofitable misery to the peasant. He is illiterate, lacks credit and easily gets into the vise of the village moneylender. Soon, unpaid interest accumulates, the farm is mortgaged and finally the peasant is evicted from his land. But if he should continue to cultivate, there are no credit, marketing and storage facilities. Indian agriculture is a matter of deficit economy; it has become a tragic way of life and not a worth-while business proposition. Another factor is the government's land revenue policy, which is a combination of medieval feudalism, benevolent despotism and incoherent diversification. Added to these are the problems of subdivision and fragmentation, low productivity, underemployment and the want of subsidiary occupation for the peasant. This list does not exhaust the problems of the Indian peasant but any addition to it will only make it a lament. There is no cause and effect, for it is difficult to decide what maladjustment leads to what malady. It is a confusing, vicious circle.

The volume under review is an excellent, comprehensive and sane examination of all these problems and more. Its thirty-odd chapters examine practically every aspect of the Indian rural problem and furnish a wealth of statistics and numerous comparisons with other parts of the world. Part I of the book states the facts of the situation without comment. Part II reviews

the activities of the government departments and public and semi-public agencies and attempts to assess the adequacy of the work so far done. Part III lays down a policy and a plan. The following list of chapter headings will indicate the subjects discussed and the scope of the volume: Environment and Resources; Population; Agriculture; Food Supply and Nutrition; Social Services in India; the Evolution of Indian Agricultural Policy; Crop Improvements and Technical Research; the Land Problem; the Size of Holdings; Rural Engineering; Agricultural Finance and the Coöperative Movement; Money-Lender-Finance and Debt Legislation; the Reform of the Land System; Surplus Population and Rural Unemployment; and Prime Agencies of Reform.

The authors do not merely narrate the problems and the evils. Throughout they offer solutions and plead for reform and freedom to reform. Despite the depressing tone of their book they conclude with an optimistic observation:

There are not merely vast natural potentialities in this country; there is also plenty of talent and capacity for hard work and for sacrifice. So far all this has run to waste. If India's resources, natural and human, are marshalled and directed along right channels there is every reason to be hopeful about the question we have posed at the commencement of this epilogue. The Indian rural problem is a challenge to the rulers and to the ruled and it is a challenge that can be met only when there is a new awakening and a new readiness to work and sacrifice on the part of all concerned. Granted this basic requirement, all other considerations, funds, technical equipment, expert knowledge, are minor; they will come. Others have done it before us. We in India also can and we must. And probably as we proceed, we shall continually discover new springs of action, new avenues to success, new ways of organization and achievement so that the solution of the problem which looks so vast and intractable today may, when we work at it, prove to be not so superhuman a task after all, and the joy of something done, and done well, may give our nation the courage and enthusiasm to take on more formidable tasks, not for power and wealth alone but for culture and light, which is our true heritage. Man's spirit—what can it not triumph over?

Through this remarkable study the authors have laid every student and well-wisher of India under their obligation and it is hoped that the book will remain not merely as a brilliant study but that its plans will be put into effect by whatever government may sit in New Delhi when this war is over. It looks almost ungracious to complain about the lack of complete and uniform citations in footnotes, the absence of a bibliography, and worst of all, an index. This is said to prevent similar omissions in future volumes of the Indian Society of Agricultural Economics.

S. CHANDRASEKHAR

Washington, D.C.

Brazil on the March. By MORRIS L. COOKE. (New York: McGraw-Hill. 1944. Pp. xiv, 303. \$3.00.)

This book, one of several published recently on Latin America, was written by the head of the American Technical Mission to Brazil. Its objectives are

to inform nontechnical readers of the development of present-day Brazil; to indicate the many problems confronting Brazil, "a nation girding itself for a far-flung industrialization"; and to educate the American people to the advantages and possibilities for coöperation between the two countries in order to secure their support for "any plan uniting our two nations in a comprehensive and mutually advantageous understanding" (pp. x-xi).

The book is based on the confidential Report of the Mission (4 volumes). Many of the factual data, descriptive materials, recommendations and conclusions are taken verbatim from the Report. The Mission was organized in the summer of 1942 and submitted the bulk of its report in December of that year and the remainder early in 1943. To appreciate the importance of the Mission one must remember that the economy of Brazil is one of the least self-sustaining; the well-being of the country depends very largely on successful export of a few commodities (*e.g.*, coffee, cotton and meat) and on adequate import of coal, petroleum products, chemicals, wheat and numerous manufactured products. Important segments of the Brazilian economy were adversely affected very soon after the outbreak of the war in Europe. The British blockade prevented Brazil from trading with the Axis countries. The loss of this trade was significant; Brazil's trade with Germany alone for the years immediately preceding the outbreak of the war was only slightly less than its trade with the United States. The entrance of the United States into the war did not mitigate conditions in Brazil; in some ways it made them worse. Enemy submarine warfare was intensified and a very large number of ships transporting goods to and from Brazil were sunk. Moreover, the war demands on ships and goods prevented the United States from supplying adequately many of Brazil's basic needs. As a result of these and other factors, conditions became so critical that it was feared the economy would collapse and output of vitally necessary raw materials would decrease. Accordingly, the objectives of the Mission were to study methods of (1) increasing Brazilian production of essential products formerly imported; (2) converting Brazilian industries to the use of substitute raw materials, replacing materials formerly imported; (3) maintaining and improving Brazilian transportation facilities; and (4) laying the foundation for long-range strengthening of the Brazilian industrial economy.

The fourteen chapters of the book are devoted to discussions on such general topics as the land and economy of Brazil, manpower, minerals and metals, transportation, fuel, water power, manufacturing, and etiquette for American investors. The author has included in the book a great deal of the technical discussions on specific problems relating to these general topics which were in the Report. Hence, a substantial portion of the book is of little or no interest to most readers. Conversely, he has omitted from the volume discussions on many problems of considerable importance to business men, investors and lay readers. Among the omissions are those relating to agriculture, land reform, tariff, immigration and debt settlement. The author's unbounded optimism with respect to Brazil's future causes him to make many generalizations which are not substantiated. Moreover, he minimizes or ignores a number of weaknesses in the Brazilian economy. Since the book is intended pri-

marily for lay readers, these weaknesses are all the more significant.

The author states, for example, "modern industrial development in Brazil sprang first from the abolition of slavery in 1888 and was most rapid in São Paulo . . ." (p. 7) and "the establishment of the wage system in place of slavery stimulated industry throughout Brazil" (p. 39) by providing a labor force and creating a market. With the exception of the reference to São Paulo it is extremely doubtful whether these conclusions can be supported. Even granting that modern industrial development in Brazil started in 1888, to say that it sprang first from the emancipation law of that year is too superficial an explanation of two extremely complex movements. The abolition law of 1888 was much more significant in terms of national pride and responsibility than it was industrially. This law freed less than 725,000 slaves, approximately 5 per cent of Brazil's total population in 1888. Just prior to its passage there were three times as many free Negroes as slave Negroes. Of greater importance economically were the laws of 1850 and 1871 which terminated the "traffic in slaves and freed all children born of slave mothers. The operation of these and other national laws, the abolition laws of the states of Ceara (1883), and Amazonas (1885), the emancipation decrees of several cities, voluntary manumission, desertion and deaths, had reduced the number of slaves from approximately 3,000,000 in 1850 to 1,500,000 in 1871 and to 725,000 in 1888. Slavery had received its death blow and would have ended soon after 1900 even if the law of 1888 had not been passed.

A more realistic explanation of the beginnings of industrialism in Brazil (in reality, São Paulo) is to be found elsewhere. The people who settled São Paulo from colonial days to the present time have been vigorous and adventurous but comparatively poor and, for the most part, unable to afford slaves. After 1860 the increased demand for coffee in Europe and the United States enriched São Paulo. Although most of the profits were invested in plantations, some of them were invested in industry. Many coffee plantation owners early realized that slave labor was very expensive; hence they encouraged, with state aid, immigration from Europe. After 1860 the number of immigrants coming to São Paulo increased steadily and in the year 1888 reached 92,000. The immigrants provided some of the needed labor in agriculture and much of the needed skills and initiative in industry; they also formed an important segment of the market for industrial goods. The tariff acts of 1887 and 1890 and the increase in transportation facilities also stimulated industry in São Paulo. Between 1860 and 1890 important changes were taking place in other fields: education, arts, politics, international relations, finance, etc. These changes, the emancipation law of 1888, the overthrow of the Empire in 1889, and the beginnings of industrialization, were all parts of a profound and all-embracing progressive movement.

With respect to productivity the author states that "the low wage scale of Brazilian labor naturally reduces productivity . . ." (p. 11). This observation is true only if wages are so low that laborers cannot secure adequate amounts of food, clothing and shelter, and therefore are unable to work effectively. Although there is evidence that this condition may exist in Brazil, the author both admits and denies it on the basis of personal observation and interviews

with several employers (pp. 62-76). In the chapter on manpower the author apparently discards the conclusions reached objectively by medical authorities, social scientists, and government officials regarding the poor health of the Brazilians in favor of his personal observations made from the window of his office (pp. 62-63)! Of course the laborers observed by him worked in the elite trades, aircraft and construction. It should be indicated that over 70 per cent of all Brazilian workers are engaged in agriculture and a very substantial percentage of the remainder are employed in low-wage industries. In these groups the number suffering from tuberculosis, leprosy, malaria, and malnutrition diseases is extremely high. As a result, Brazil has one of the highest sickness and mortality rates. Industry and agriculture both suffer because of the poor health of the workers.

The concluding remarks of the discussion on manganese ore are so worded as to give the definite impression that Brazilian manganese is of the highest quality and that the United States during both wars has depended almost wholly on Brazil for this ore (p. 90). Although the quality of Brazilian manganese ore is high, that mined in other major producing countries is of equal or even higher quality. The statements with respect to the dependence of the United States on Brazilian manganese during this war cannot be supported. Over 80 per cent of the total imports during the past four years has come from India, South Africa, Cuba and the Gold Coast; approximately 20 per cent from Brazil. United States interest in Brazilian manganese stemmed primarily from the fear that Japan would occupy India, the most important supplier. There is no shortage of manganese in the major producing countries. The lack of ships to transport the ore has been the real problem and it has affected the shipments from Brazil as well as those from other countries.

The author is optimistic as to the position of Brazilian industry in the post-war period, but evidence to support this position is inadequate. Typical is the discussion of manufactured rubber goods. The author states that since there is an abundant supply of raw rubber in Brazil, an industry to manufacture and export rubber goods can be established (p. 231). This is a curious conclusion since it is admitted that wild rubber from Brazil cannot compete with plantation rubber from Asia and that plantation rubber production in Brazil thus far has not been successful (pp. 106-07). With respect to the competitive position of Brazilian rubber in the future the author cites a rumor that the Japanese are planning to cut down 60 per cent of the trees in occupied areas, but he does not believe the destruction will be that extensive. Despite the fact that by the middle of 1943 the production of synthetic rubber in the United States was assured, the author dismisses the problem of competition by saying "we are searching for synthetic substitutes" (p. 108)—implying that such substitutes had not yet been found.

Two other weaknesses of a different type will be mentioned. Although the book is written for the lay reader, there is not one map or chart accompanying the discussions on population, topography, rivers, railroads, economic resources, manufacturing centers, states and cities. The book is too long; many sections could have been omitted or shortened. Typical are the sections on trade associations (pp. 46-52) and rubber (pp. 231-36). The materials covered

are of little interest to nontechnical readers; they are inadequate for business men.

The author is at his best in describing certain phases of the present-day Brazilian economy. Typical are the discussions on manufacturing and transportation. The textile industry, which is the largest and employs over 140,000 persons, is extremely inefficient; the entire industry needs new machinery and buildings equipped to control humidity. The paper, chemical, and metallurgical industries are in the very early stages of development, the units are small, techniques are poor, and no research is being done. "A little of the best and much of the worst" describes Brazil's transportation facilities. Although Brazil is larger than the United States it has only 21,000 miles of railroads as against 232,000 for this country. The equipment is old and since 1940 much of it has not been replaced. The existence of three gauges makes the interchange of rolling stock impossible and increases transportation costs. The number of miles of highways is extremely low and the quality of the roads very poor, many of them being impassable during the rainy seasons. Most of the numerous rivers are too shallow or have natural obstructions. The author suggests and defends the development of cargo plane and glider for transportation, especially to the interior and the Amazon Basin.

Although this volume does serve a useful purpose, a more discriminating type of book on Brazil is needed.

DONALD SHAM

Washington, D.C.

Economic Systems; Post-War Planning

Bureaucracy. By LUDWIG VON MISES. (New Haven: Yale Univ. Press. 1944. Pp. viii, 125. \$2.00.)

The division between the Austrian theoretical and the German historical schools, signalized by the bitter interchange of views between Karl Menger and Gustav Schmoller in the last century, was more than a dispute over methods and over the significance of the subjective theory of price. It went farther and deeper, and left lasting results. Both groups were dissenters from the English classical school, but from that point their ways went wide apart. The members of the historical school professed to renounce all theories of price, but in fact were cost-of-production theorists when in need of a price theory. They disparaged the benefits of private enterprise, and advocated enlarging the powers of the state to fix prices and to direct the processes of production. The Austrian school, on the contrary, traced the ultimate sovereignty over price to individual subjective valuations of consumers, thus giving new emphasis to the democratic character of free enterprise, and new meaning to the price system. The one pointed the way to the totalitarian state, and the other to a greater and better liberalism in economic and political affairs. The conflict between the two ideologies was irreconcilable.

It is not mystery or chance that two of the most effective contemporary

critics of socialism and most valiant defenders of free enterprise are native Austrians, both pupils of Boehm-Bawerk and Wieser at the University of Vienna, carrying on the tradition of Menger. The one is now in England and the other in the United States. *The Road to Serfdom* by Friedrich Hayek, and *Omnipotent Government* and *Bureaucracy* by Ludwig von Mises, are essentially harmonious formulations of the present issue between freedom (political as well as economic) and the trend toward totalitarianism. Both men in their growing years were witnesses of the steady advance of totalitarian measures on the continent, culminating in the Hitler régime, and they warn the western democracies against recent trends in our public life.

Nor is it mystery or chance that John Maynard (now Lord) Keynes, who until 1924 was a faithful Marshallian in the Ricardian tradition, found it necessary when he became an advocate of national planning, to abandon the "classical" doctrines, and to make the state the arbiter of prices.

The little volume before us is not, as the title might suggest, a frontal attack on bureaucracy, a term which, as the author says, always has "an opprobrious connotation." On the contrary, it is repeatedly emphasized that the growth of bureaucracy is a symptom and not the real evil. "The culprit is not the bureaucrat but the political system." Bureaucrats are merely the tools, or agents, for exercising whatever powers have been acquired by government. The main argument is directed against the transfer to the government of the economic functions of price determination and direction of production. As these functions are more and more centralized and these activities are exercised by the government instead of by private enterprise, the number of bureaucrats necessarily increases, and an increasing volume of decisions must be entrusted to them. Hence bureaucracy with its growing arrogance is a fairly accurate measure of the approach to totalitarianism. Such seems to be the thought, although the author has found it difficult to keep this clearly distinct from an indictment of bureaucracy *per se*.

At times even a reader in sympathy with the author's main thesis may question whether capitalism is not exalted too much by crediting it so fully with all the fruits of science, invention, and cultural progress. Yet the case for free enterprise *versus* socialism has nowhere been more ably and readably stated in brief compass. It would be a mistake to interpret this as a plea for an unalloyed policy of *laissez-faire*; the need to exercise broad police powers to protect the health, morals, and security of the whole people is clearly recognized. Withal, Professor von Mises is a consummate general theorist in this day of specialization, and he views the problem broadly and speaks with deep conviction. The Austrian economists are nobly requiting the hospitality of the western democracies by their earnest warnings against too great confidence that "It cannot happen here."

FRANK ALBERT FETTER

Princeton University

The Control of Germany and Japan. By HAROLD G. MOULTON and LOUIS MARLIO. (Washington: Brookings Inst. 1944. Pp. xii, 116. \$1.00.)

The Book-of-the-Month Club, believing that this recent publication of

The Brookings Institution could be of such vital importance in the establishment of a lasting peace throughout the world that every American citizen should be informed of its contents, distributed it as a special book dividend to its entire list of over 600,000 members. Hence, it has had a much wider circulation than is usual with serious studies of this type.

As the title suggests, Moulton and Marlio examine all the various proposals which have been advanced to prevent any revival of German or Japanese aggression in the future. Unlike a great deal of the current discussion based on wartime hatred and excesses of all kinds, the authors "take past experience into full account and all the future difficulties which can be foreseen, as time and self-interest change the present mood of peoples—as they surely will."¹ They reject many of the economic plans proposed as inadequate or futile; they do not believe that boundary adjustments or outright dismemberment (in the case of Germany) will solve the problem. They suggest certain simple key economic controls which would be relatively simple to administer and which would not disrupt world trade or the economies of adjacent countries, as useful supplements to disarmament and a system of military control, although some system of military control is fundamental. Force should be used promptly against Germany and Japan if allied supervisors in key industrial areas detect any evasion of disarmament provisions which are not halted immediately after a warning.

The use of force against Germany and Japan to prevent re-armament need not wait for a world security system, although the authors favor the development of a genuine international peace system but not "a make-believe collective security system—without adequate power to enforce decisions." "The surest and quickest means of realizing an effective universal peace system is by separating the German-Japanese problem from that of the world peace problem and solving it first."

"Meanwhile, a general international agency should be established for the co-operative handling of a wide range of political, legal, economic, and social problems. Such an organization, in adjusting international problems and controversies, would remove causes of military conflict and constitute the framework for an eventual collective security system world wide in its scope" (p. 108).

This was substantially the point of view put forward by Senator Vandenberg shortly before the Yalta Conference at a time when many Americans, anxious over developments in Poland, Greece, Italy and Roumania, were waiting for some clarification of our foreign policy while other Americans protested that the Allies could make no plans until the United States agreed definitely to adhere to some system of collective security. Vandenberg proposed that we definitely commit ourselves without delay to join with our Allies in the post-war military control of Germany and Japan.

Moulton and Marlio faced with vision and courage this and other problems on which there had been much muddled thinking and talking. They clearly distinguished between proposals of doubtful validity and others which are almost universally accepted. In spite of tremendous propaganda and pressure

¹ Book-of-the-Month Club Prospectus.

to restrain the people of the United States from indulging in criticism of tentative Allied plans, proposals for the repressive economic treatment or dismemberment of the defeated enemy (such as the Morgenthau plan for the de-industrialization of Germany or Stalin's plan for reparations in the form of forced German labor battalions), were not well received on the whole, whereas there has been well-nigh universal acceptance of plans for the complete disarmament of Germany and Japan and for the use of force to prevent future aggression. Similarly there is wide support for the idea of American participation in some international organization, but at the same time an understandable reluctance to guarantee for all time the terms of a peace as yet unknown.

The book is divided into three parts. Part I is concerned with the Application of Economic Measures to Germany, Part II with the Application of Economic Measures to Japan, and Part III with the question of Economic or Military Control. It is impossible in the space available to review the various arguments in detail.

"The breaking up of Germany into a large number of small nations or the setting up of a separate state in Western Germany which would deprive the Reich of its richest industrial region would have such profound economic repercussions, both upon Europe and the world as a whole, that it would be self-defeating" (p. 93).

"In the case of Japan, the severance of the colonies would greatly reduce the nation's economic self-sufficiency for war purposes. But unless Japan Proper were also controlled, the nearby areas might at some opportune time again be seized in a new aggression" (p. 93).

The control of Japan will be a simpler problem than that of Germany when the Japanese people are confined to the home islands. Because of Japan's geographical position, her extreme weakness in industrial raw materials and the fact that she will not be self-sufficient in food stuffs, it should be possible to exercise this control by air and from the sea. It is possible that Moulton and Marlio underestimate the importance of the colonies and of her merchant marine in Japan's economic development in the past.

The Yalta Conference called for the elimination or control of all German industry which could be used for military production, and it has been suggested that this same principle be applied to Japan. This could mean virtually the complete de-industrialization of Germany and Japan.

On this point, Moulton and Marlio sum up as follows: "*Economic plans designed to destroy once for all the industrialism on which war power rests are impracticable.* The difficulties are two-fold: (1) the reduction of any highly developed industrial country to an agricultural status would leave a vast population incapable of self-support; and (2) it would disorganize and contract international trade at a time when an expanding world economy is of paramount importance for all nations. It would work directly at cross purposes with the economic self-interest of the controlling countries" (pp. 93 and 94).

They suggest that control over certain key industries which center on avia-

tion and the aluminum and oil industries—and electric power distribution in Germany—might make it difficult for Germany and Japan to rebuild their military power without too much disturbance to normal peacetime trade and industry.

The authors believe that it will be impossible to impose severe economic terms upon Germany and Japan without undesirable repercussions on the rest of the world and without seriously limiting the field of private enterprise. "*A general system of economic control would work strongly against private enterprise. . . . Thus, the complications of an international economic control system, even though levelled against only two countries, would inevitably exert a powerful influence in the direction of government domination of business, both in the international and domestic fields. The weight attached to this fact will of course depend upon each individual's view as to the merits of government determination of business policy as compared with a system of private enterprise*" (p. 96).

Although the authors do not discuss what may happen outside Germany and Japan, every thoughtful person realizes that the scope of private enterprise will be pretty much limited at the end of the war, but the precise degree will be influenced by the conditions of the peace. There will be three great powers at the end of war—the United States, the British Empire and the Soviet Union. If Britain is to remain a great power, she must recover her trade and is likely to increase trade controls within the Empire. In Soviet Russia, all trade and industry are absolutely controlled by the state, and this sphere of absolute state control will be immensely enlarged as a consequence of the war. It may include not only much of Eastern Europe but also Korea, Manchuria, Communist China and even Japan and Germany if economic distress and political unrest are so intense that communism presents the one hope of relief. Opinions will differ as to the desirability of such a development, but it will certainly impose the necessity of much more state control in other countries.

Many people think of economic controls as an alternative to military force. Moulton and Marlio reject this view. "We are forced to the conclusion that only military force can be relied upon to give complete protection against nations bent upon aggression. Not only are economic control measures two-edged in their effects, disturbing to world stability, and of dubious reliability, but *they cannot, in any case, be enforced unless backed by adequate military power.* The moment any country rebelled against the economic measures imposed, at its borders or within the country, military force would become necessary to compel compliance. The experience of the 1930's should have engraved this fact upon our memories" (p. 97).

There is so little passion and so much sober common sense in this little book that it should be read by everyone who is interested in the final peace settlement.

ELIZABETH BOODY SCHUMPETER

Taconnic, Connecticut

A Prosperous Post-War Era Is Possible. By CARL H. WILKEN. (Sioux City: Raw Materials Nat. Council. 1944. Pp. 48.)

As spokesman for the Raw Materials National Council and National Association of Commissioners, Secretaries, and Directors of Agriculture, Mr. Wilken has presented what is offered as the answer to the "economic riddle in the United States." All of the maladjustments and difficulties of our economic life, it is claimed, are now easily correctible if we follow the three simple steps to prosperity—parity prices, parity tariffs and new industries. That Adam Smith, Ricardo, Mill, Marshall, Taussig, Keynes and other men outstanding in the economic world of the past two hundred years have not understood and presented to the people this "key to prosperity" is attributed wholly to human skepticism and selfishness.

The great danger of Mr. Wilken's partial analysis lies in its strict adherence to an inflexible formula. Stuart Chase evaluates this sort of approach in his recent book entitled *Democracy Under Pressure*. He says: "Most special interest groups have a formula which tends to freeze the economy. Not only do they want the government to interfere on their behalf, but they want a *high unit price rather than high production*. This leads straight to restriction of output, to scarcity economics, cramps and spasms." To a populace confused by depression and war, Mr. Wilken's seemingly simple formula may have tremendous appeal as a panacea for all our economic ills. The author fails to define orthodoxy, but "politicians of all parties" are grouped indiscriminately with "orthodox economists," and on their collective doorstep is placed all blame for depression, unemployment, and public debt. But the author's thesis is the result of serious research and study, and as such is worthy of specific analysis.

The author's first proposal is the stabilization of the prices of farm products by a 100 per cent parity policy. The justification for government commodity loans to maintain parity for agricultural products is claimed to be inherent in this formula devised to show the multiple effect of a given increase in farm income. This is called the "1-1-7" formula and states that "each dollar of agricultural income translates into one dollar for factory payrolls and a grand total for all groups of seven dollars in national income or purchasing power." The assumption is that parity farm prices create substantial income at the beginning of our economic cycle and automatically carry through in a seven-fold turn of the initial dollars. This multiplier of 1 to 7 shows, assuming the statistics presented are accurate, a relationship. It does not seem, however, that the formula, or any part of the argument presented, establishes in any way a cause-and-effect relationship. The statistical record merely shows that at certain intervals computations were made of gross agricultural income, factory payrolls, and gross national income, all in money terms. A certain ratio has prevailed, but no proof has been offered that agricultural income is the governing factor.

Mr. Wilken states that with corn at 80 cents a bushel the yield to farm income, factory payrolls and national income would be twice that yielded by corn at 40 cents a bushel. It is submitted by the reviewer that a more accurate

statement would be that, with national income and factory payrolls at twice those levels necessary to sustain a 40 cents per bushel price for corn, the effective demand (demand plus a dollar) for corn might be sufficient to sustain a price of 80 cents per bushel.

Of a total labor force of approximately 55 million, 11 million are engaged in the production of raw materials, and 44 million in processing, distribution, and services. The raw materials produced by the 11 million are cost items to the 44 million, whether these materials are purchased for further production or immediate consumption. The higher the levels of employment and income in the processing, distribution and service segments of the economy, the higher will be the prices which can be paid to the producers of raw materials for their products. Hence, Mr. Wilken's argument would seem to be another case of putting the cart before the horse for the purpose of furthering the position of a minority group. It is axiomatic that, as industrial activity is stimulated, innumerable demands for agricultural products are created and strengthened. It is demand, not artificial price structure, which will call forth production of raw materials.

Throughout the study, emphasis is put upon income in money terms almost to the exclusion of any consideration of real income. Statistics are presented which show that the volume of production of basic grains and meats was approximately the same in 1928 and 1932, while in the latter year the national income was roughly 39 billion dollars compared to 82 billions in the former. The difference is called a loss, but could it not be possible that in 1932 the 39 billions cleared the market for basic grains and meats as effectively as 82 billions did in 1928? The author unwittingly weakens his purely monetary explanation by his true statement that "an economy is an exchange of goods and services and not a traffic in money."

The second proposal is to install a system of parity tariffs. The claim is made that protective tariffs will guard "the price level against excessive imports which might tend to break down our parity price structure." Complete disregard has been awarded the basic fact, inherent in the laws of comparative advantage and least comparative disadvantage, that we should produce those goods which we are able to produce better than any other nation. Foreign trade is dismissed with a wave of the hand and the reassuring question, "Why worry about foreign trade when we have everything, except a few minor items, in abundance?" Such flippancy was discarded when, at the outbreak of the war, we realized that the strategic value of these "few minor items" was way out of proportion to their monetary value. Furthermore, we dare not discard so lightly the fantastic potential demand of India, China, and other low living standards areas for the products of our economy. Are we to follow Mr. Wilken's advice and impose tariffs once again to support overspecialization in such crops as cotton, to strangle foreign trade, and to lay the foundation for economic frustration and a third World War?

In his plea for the encouragement of new industries, the author's discussion makes sense if considered apart from his fundamental thesis. If viewed as merely the third proposal in the whole scheme, its practicability is killed by the arguments which precede it. To adhere to artificial parity prices and

tariffs is to stifle the impetus necessary to new and expanding industries. The only sound proposal in the entire scheme would seem to be incompatible with the basic tenets of the whole thesis.

The study seems to contain considerable contradiction and paradox, and shows a tendency to streamline facts to fit a predetermined end. Much valuable information, however, is embodied in this report, if properly viewed as a partial analysis with a somewhat sectional bias. Its appealing language and seeming simplicity give emphasis to the desirability of subjecting this study to the closest possible scrutiny.

ARTHUR M. WHITEHILL, JR.

*Bureau of Population and Economic Research
University of Virginia*

The Equations of World-Economy in Their Bearing on Post-War Reconstruction. By BENOY KUMAR SARKAR. (Calcutta: Chuckerveritty Chatterjee. 1943. Pp. xix, 416. Rs. 12.)

The title of this interesting book is misleading. It has nothing to do with mathematical economics but deals in very broad terms with economic history and institutions. The author attempts to put one country in a specific stage of development of its economic life equal to another country at another stage. So we get, for instance: India (1940) = England (1830-48) = Germany (1865-70), and similar "equations."

In the course of his discussion of the comparative development of the economy in various countries the author shows often remarkable perspicacity and a wide, if somewhat superficial, acquaintance with the literature in many languages. His discussion of post-war problems is not very illuminating and rather journalistic.

GERHARD TINTNER

Iowa State College

Business Cycles and Fluctuations

The Economics of Full Employment: Six Studies in Applied Economics. Oxford Univ. Inst. of Stat. (Oxford: Blackwell. 1944. Pp. 213.)

If we are indeed traveling "the road to serfdom," then these six studies show us a rational—though somewhat formalistic—way to go about it. For, starting with the postulates of Keynesian analysis, the authors carry its implications through to the very end, bitter or pleasant, depending on one's social preferences.

The first essay, by F. A. Burchardt, outlines "The Causes of Unemployment." The causes are classified into three main groups: (1) the classical *laissez-faire* competition theory, which makes unemployment a short-time deviation from the normal as a result of wage rates which are out of line with the cost and price structure; (2) the "natural wave" theories, according to

which unemployment is simply a phenomenon of the lower phase of the cycle, and for which there are as many explanations as there are explanations of business cycles; (3) the demand deficiency theory, according to which unemployment results when people desire to save out of a given income more than the community wishes to absorb in offsetting outlays. The determinants of saving and investment are enumerated in the usual pattern, with expected changes in demand being considered "by far the most important factors" in investment decisions (p. 29).

In the second essay, M. Kalecki outlines "Three Ways to Full Employment": deficit spending, stimulating private investment, and a redistribution of income. Stimulating private investment is not considered a satisfactory method. It should be carried to a level adequate to expand the capacity of equipment *pari passu* with the increase in working population and productivity of labor (p. 47), but there is no guarantee that this is also the level at which full employment is achieved. If it is not, government spending must fill the gap. In contrast to the prevailing view in the United States, government spending includes both public investment and subsidies to private consumption. Whether the emphasis should be on consumption or investment, spending must be determined by the pleasantly evasive and completely political principle of "social priorities." The usual questions about deficit spending—Will it lead to inflation? Where does the money come from? How can we carry the burden?—are competently answered with the usual Hansen analysis.

The final method suggested, *i.e.*, redistribution of income by means of taxation, wage policy, and/or price control, is found desirable both because it would raise the propensity to consume and also because it would fit in with the author's concept of social justice. Except for the latter point, the effectiveness of the method is frequently exaggerated; for the limits of taxation are clearly recognized, even if they are somewhat widened by the author's interesting suggestions on tax improvements to encourage risk-taking. In fact, it is not very clear from the analysis of the debt burden why one should bother with taxes at all, especially in depressions.

In the third essay, G. D. N. Worswick examines "The Stability and Flexibility of Full Employment." It is a very sobering analysis for it makes it quite clear that just as much planning and control are necessary to maintain full employment as to achieve it. Interestingly enough, the author is either not aware of this or he disagrees fundamentally with his colleagues. For he establishes the principle that planning and (labor) reserves are supplementary: the less there are of the latter the greater is the need for the former (p. 78). The greater the unemployment the less need for government planning! But at full employment, it will be necessary to use subsidies and price control to deal with the pressure for rising wages (p. 70), price control to prevent the more uneven distribution of income caused by full employment itself (p. 77), government control of the location of industry and population (p. 79), government control to increase the mobility of labor (p. 73), and government control not only of the aggregate of demand, but also of its constituents (p. 78). In fact, the very concept of "full employment" will change with its achievement, and the author concludes that once we reach a level near full employment it

will be difficult to define that concept "in any way which is suitable for practical application" (p. 79). Road-to-serfdom pessimists will either smile with pride or cry with satisfaction at Worswick's conclusion that the achievement of full employment will "raise certain difficulties which can only be overcome by a greater degree of advance 'planning.'"

In some ways, E. F. Schumacher's essay on "Public Finance—Its Relation to Full Employment" is the most thought-provoking of the six essays. The discussion of the impact of Keynesian analysis on the classical principles of public finance (*i.e.*, keep budget small and balanced; reduce debt as fast as possible; tax consumption; if deficit cannot be avoided, issue long-term bonds; and borrow only for "productive" investment) makes it clear that these principles are not necessarily "wrong," but that they pertain to specific economic conditions which in modern times do not prevail as often as in the last century. Schumacher's most useful contribution to the post-war planning of public finance lies in his discussion of the supposed dilemma of taxing investment or consumption. In fact, investment and consumption are not necessarily opposites, and never so at times of unemployment. "One way—in fact the most sensible way—of increasing private investment . . . is to stimulate consumption" (p. 97). Once this is clearly recognized, the limits of redistributive taxation can easily be overcome. For not only will the increase in consumption stimulate investment, but the otherwise detrimental effect on the incentive to invest can be avoided by permitting all investments actually made to be charged—like present depreciation allowances—to cost account. While there may be better methods of overcoming this difficulty, nevertheless Schumacher's discussion makes it quite clear that the "either . . . or" method employed by post-war tax planners creates problems which do not really exist. Other problems of post-war finance, such as the burden of the debt, national debt and inflation, the rôle of the banks and the interest rates, are discussed in the standard pattern of the "new" finance. Interestingly enough—and this is no chance happening—the essay concludes with a series of recommendations nearly identical to Senator Murray's Full Employment bill of 1945.

T. Balogh's study of "The International Aspects of Full Employment" is an excellent summary of the post-war possibilities which confront international trade. The greater part of the essay analyzes the interrelations between the international balance of payments and full employment under all kinds of different assumptions as to price and income elasticities of demand and supply and the various possible disequilibria. Such findings as the one that "depressions in important countries hardly ever coincided with full employment" (p. 137) may show a pleasant sense of humor, but repetition is not enough evidence for such claims as that "the internal rigidity of the economic system has increased substantially" (p. 174) or that the prevention of unemployment and the minimization of the interference with the optimum international division of labor often constitute alternatives (p. 135). This last idea has, of course, been rather widely accepted, but that Balogh should agree with it is strange, especially since he realizes that the latter concept, *per se*, is somewhat meaningless, and that when we do try to give it meaning we find that the state of employment is one of its determinants. Although there is a different

optimum international division of labor for each level of employment, the optimum usually referred to is the one at full employment, so that the two can hardly be alternatives. Furthermore, the optimum is not only determined by the level of employment, but also by the very method which achieves full employment. For full employment can theoretically be achieved at a wide range of income levels, depending on the method employed, and the optimum would, of course, change with the income level.

Parts II and III of the essay analyze the requirements for a successful multilateralism, or, in its absence, the prospects for full employment in a world divided into regional *blocs*. For the former, it would be necessary not only that the nations of the world agree to maintain full employment, but they would also have to agree to certain domestic limitations in the methods to be employed. Since this may not be possible in post-war conditions, the author thinks regional *blocs* preferable to completely nationalistic policies. The conclusion is probably correct, but the analysis on which it is based is neither sufficient nor precise enough to prove it. For such *blocs* would of necessity have to be based on geographical factors which may not at all agree with the economic considerations. In as far as dissimilar conditions of production make trade profitable, it is quite likely that the countries which should preferably make up an economic *bloc* are geographically far apart. Or, the conclusion that small and poor countries would suffer most from nationalistic policies may be quite correct, but a great many more considerations would first have to be examined before the critical reader would accept it.

The sixth essay is K. Mandelbaum's description of "An Experiment in Full Employment: Controls in the German Economy, 1933-1938." This is an interesting outline of some of the problems which confronted the German government, but, as the author fully recognizes, its applicability to our own conditions is severely limited by the fact that Germany's full employment was the full employment of a war economy. The summary of Germany's foreign trade controls is too sketchy to give us a clear picture of the complexity of the problem, and also fails to show the applicability of the lesson to our own experiences. In the domestic sphere, the purpose of Germany's controls was to decrease wages and increase savings, and it is not quite clear what the relation of these controls are to controls which attempt the opposite. It is interesting to note that Mandelbaum disagrees with his colleagues on the need for labor controls at full employment, for he finds that wage differentials and noncompulsory measures were quite sufficient to direct the labor flow in the desired channels. This may in part be due to the fact that the mobility of labor increases with full employment.

In a concluding, unsigned section on "The Wider Implications of Full Employment" the need for extensive controls is again repeated and "justified." It is not a question of controls or no controls, it is argued, but a question of what kind of controls. And is it not better to have conscious, democratic controls than the sectional control of local groups, private control of cartels, and the hidden control of unemployment? As in most of our thinking, those who disagreed will still disagree, and those who agree will continue to agree, because of, or in spite of, the reasons presented.

The really basic weakness of the book is also one of its advantages: for it is thoroughly representative of the present-day methods of economic analysis. We were quite correct to criticize the "classical" economists for their neglect of monetary flows. But, as was to be expected, we are tending to the opposite extreme, overemphasizing these flows, and neglecting the basic elements behind them. But these are mistakes of the time, not merely of the book.

HANS A. ADLER

New York

Public Finance; Fiscal Policy; Taxation

The World's Biggest Business. By PAUL W. ELLIS. (New York: Nat. Industrial Conf. Board. 1944. Pp. xii, 139. \$2.00)

Students of current public finance in the United States have missed for several years the annual compilations of federal, state, and local expenditures, revenues and debt which the National Industrial Conference Board published between 1926 and 1938. The present volume continues that series in a new dress, and it can only be hoped that it again will be published regularly.

As in former years the volume presents, for the three levels of government, expenditures broken down by functions, revenues broken down by sources, and debt broken down by purposes, maturity, and interest rates. Most of the data are given for the period from 1914 through 1943. The compilation shows the hand of a careful and painstaking expert in the intricacies of government finance and accounting.

There are, of course, always questions of classification on which one might differ. The table, "Federal Expenditures for Defense and War" (Table 14), includes expenditures from general and special accounts, but not the war outlays of government corporations, though there is little difference between, say, expenditures of the War Department for industrial facilities and outlays of the Defense Plant Corporation for the same purpose. The text is largely a description of figures rather than an explanation and interpretation of the findings. (See, for example, the discussion of the Veterans Administration on page 37 or the paragraph "Economic Significance" on page 19.)

Most readers will use the volume for general reference purposes and will not be disturbed by the fact that it is not always easy to check the figures with the sources. The author states, *e.g.*, on page 100, that so-called "other non-tax revenues" of the states were 44 million dollars. The Bureau of the Census publication, *State Finances 1943* (p. 11), which is obviously used as a source for the other data in that section gives a figure of 31 millions. I also failed in an effort to identify exactly what source has been used for total federal expenditures. An appendix explaining the differences between the author's figures and those of official sources would have increased the technical usefulness of the volume. In a few cases the reader may have some difficulty in reconciling figures of various tables in the book. A comparison, for instance, of the total government expenditure figure for 1941 in Table 1 with the details

of Tables 6 and 7 fails to clarify which concept of expenditures is actually used for the summary table.

The study of trends in government finance is of special interest now when so many students are attempting to estimate what the size and structure of public budgets might be in the post-war period. The author extrapolates the trend of government expenditures—which were about 3 billion dollars in 1914, 8.5 billions in 1923, 17 billions in 1939—into the post-war period and concludes that: "Past experience indicates that we may expect total government expenditures of around \$47 billion a year after World War II." It would have been of interest to learn in more detail how this extrapolation was obtained. The result is, as the author indicates, substantially higher than most of the other estimates of post-war government expenditures.

GERHARD COLM

Washington, D.C.

Money and Banking: Short-Term Credit

The Production Credit System for Farmers. By EARL L. BUTZ. (Washington: Brookings Inst. 1944. Pp. vii, 104. \$1.00.)

Frequently the merits of a thin book are disproportionately greater than its shelf space; that is true of this one.

After an institutional and statistical beginning, the latter half of the book deals with one of the most serious problems of social policy—the weighing of net public benefits against the costs of a governmental subsidy. One can scarcely feel, after reading the book, that the relatively small subsidy to the Production Credit System has not more than justified itself. The book does, however, point up the inherent danger of subsidies unaccompanied by incentives, either in the statute or in administrative rulings, to encourage termination of the subsidy—in this case to encourage retirement of the government capital. The problem dealt with is of far greater significance than the specific application suggested by the title.

WILLIAM H. MOORE

Washington, D.C.

International Trade, Finance and Economic Policy

The Common Interest in International Economic Organization. By J. B. CONDLIFFE and A. STEVENSON. (Montreal: Internat. Lab. Office. 1944. Pp. iii, 135. \$1.00.)

The argument [of *The Common Interest in International Economic Organization*, written by J. B. Condliffe and A. Stevenson, and published by the International Labour Office] presented by the authors is briefly as follows:

1. The five major economic objectives of the post-war world are "higher

standards of living, full employment, social security, economic development and international economic collaboration" (p. 9). For instance, borrowing countries "are no longer content to accept the judgment of cosmopolitan financiers as to the desirability of new enterprises." They will insist "that national and social objectives must enter into the planning of new industries within their borders" (p. 27). "The tests of efficiency are wider than mere productivity and certainly can no longer be confined to the sole criterion of profitability. An efficient business must be both profitable and productive; but if private business is to survive it must also prove its ability to meet the needs of society" (p. 47).

2. These objectives cannot be attained by a restoration of the economic system of the past. "It is more and more recognised also that merely negative policies such as the removal of tariffs and the other obstacles to trade cannot by themselves ensure a high and steady level of economic activity and employment" (p. 97). "There is no longer the prospect of returning to a self-regulating competitive market economy" (p. 49), because of the inherent trend toward monopolistic competition and economic rigidity which renders the old system especially inadequate to cope with the economic dislocations resulting from the war. "Indeed one of the distinguishing features of a monopolistic as distinct from a competitive system is that it combines the factors of production at a level below that of full employment" (p. 38). "The major element of rigidity is to be found in the growing importance of fixed capital in total production costs and of the capital goods industries in the economy as a whole," so that "the pressure for adjustment as economic conditions change tends to be concentrated on a narrowing segment of economic activity and mainly on raw material prices" (p. 49), resulting in instability so great as to disrupt the delicate self-regulatory mechanism, apart from the intolerable strain of post-war economic dislocations.

3. These objectives can as a practical matter be obtained only by positive national action. "It is clear that these objectives must be approached primarily in the sphere of national action and by using the instruments of national government" (p. 65). This means more state control of economic activity, although private enterprise may still play a powerful rôle. "The working out of policies designed to achieve maximum employment and increased social security must therefore be attempted by a combination of private enterprise and public controls" (p. 50).

4. "Such national policies, however, if they are to be effective, must be co-ordinated by international consultation and agreement. Pursued independently, they are likely to lead, as similar policies led in the decade before the war, to restriction of international trade and isolation of national economies" (p. 32). "In such circumstances national action is inevitably restrictive rather than expansive, and the experience of restrictive economic nationalism in the decade preceding the present war has proved that independent national action is incapable of solving the economic problems with which the modern world is confronted" (p. 11). "Indeed one of the tragedies of our time has been the growing conflict between social reform and internationalism" (p. 66).

The common interest in international economic organization lies, therefore,

according to the authors, not merely in integrating or controlling the foreign activities of nations or in providing favorable conditions of trade between them and all the necessary facilities therefor. Rather, it lies in the coördination of their domestic policies. This means consultation and agreement between governments regarding their actions designed to achieve internally full employment, higher living standards, social security and economic development in order that such actions may not be at the expense of each other but may be possible for all.

It is not clear from the evidence presented by the authors that the common interest which they believe should exist is the common interest which actually exists in respect of international economic organizations now under consideration or envisaged, namely, the Food and Agriculture Organization, the International Monetary Fund, the International Bank for Reconstruction and Development, and possibly others relating to the reduction of trade barriers, control of cartels, and orderly disposal of surplus commodities. With the possible exception of the Food and Agriculture Organization, which would function only in a limited scope and merely in an advisory capacity, these organizations would be interested principally in providing conditions and facilities necessary to the expansion of international economic activity under a system of private enterprise. The Fund would maintain the necessary monetary stability; the Bank would provide a sort of investment insurance, supplementing private investment when necessary; reduction of trade barriers, as well as the control or prohibition of cartels, would result in freer access to markets and sources of supply; and the orderly disposal of surplus would contribute to market stability. These measures are necessary to cope with government controls which already exist and are, at present at least, directed more toward the removal of such controls than toward their growth.

Interest in freedom of private enterprise is perhaps more powerful than the authors appreciate. It extends far beyond the business community. Freedom of speech, freedom of worship and the inalienable right to life, liberty and the pursuit of happiness, as well as democracy itself, would in the minds of millions of Americans be endangered by any developments which threatened freedom of private enterprise under which this country has grown strong and prospered. It is not a matter of logic; it is a fact of history and tradition. Individualism is an American heritage of British origin; its roots lie deep.

The common interest which the authors, Condliffe and Stevenson, find in international economic organization is discovered by leaving out of account freedom of private enterprise as an important post-war objective. It is, according to their argument, in conflict with the other objectives. The United States, at least, does not apparently share that view. It advocates both full employment and private enterprise. It does not hold with the authors that monopolistic competition is inevitable and that private enterprise cannot, therefore, provide full employment. There is no evidence to indicate that it has relaxed its efforts to break up and prevent monopoly.

ROBERT M. CARR

Washington, D.C.

The Méline Tariff: French Agriculture and Nationalist Economic Policy.
By EUGENE OWEN GOLOB. (New York: Columbia Univ. Press. 1944.
Pp. 266. \$3.75.)

In the words of Dr. Golob, the Méline Tariff of 1892 was "part of the fundamental economic law of the Third Republic." It was the answer of French agriculturists to the structural changes in production and transportation which took place in the second half of the past century. In the course of this momentous transformation grain production in the industrialized countries of Europe became a high-cost area within the framework of the world economy. Adjustment to new conditions or protection was the alternative. In France, as in Germany, the latter was chosen.

A tax on food, and particularly on bread, is the most unpopular of all taxes. Moreover, the French agriculturists could not convincingly plead that what they wanted was only *temporary* protection. Therefore, vindication on a broader basis was necessary to make the country acquiesce in agricultural protection. Such vindication was found in the ideas of economic nationalism.

Autarkic, or semi-autarkic ideas became and remained an integral part of the agricultural ideology. Therefore, during and after the Great Depression agricultural protectionism contributed to the general process of disintegration of world trade to an extent which cannot be measured solely in terms of the restrictive effects of the various protectionist devices. No less, and perhaps more, important was the rôle of agriculture as a source of autarkic ideas. Thus the theme of the present study may claim a wider significance than is usually attached to inquiries into a special field of economic history.

The first chapter of the book gives a brief but well organized sketch of the history of French agriculture during the nineteenth century prior to the depression of the eighties. It is followed by an account of the impact of the agricultural depression. The chapter on "Syndicats Agricoles" shows how the professional organizations of French farmers became imbued with the spirit of economic nationalism; in this process the author emphasizes the rôle of the anti-liberal and anti-socialistic ideas of Social Catholicism. The presentation of the nationalist economic theory is essentially devoted to Paul-Louis Cauwès, whose work, as Dr. Golob suggests, "represents a refinement and advance of nationalist economics far beyond List." The author goes on to describe the protectionist campaign. The leading rôle of the *Société des Agriculteurs*, the organization of large landowners, before and during the campaign, is duly brought out, and emphasis is placed on the importance of the alliance between protectionists in industry and agriculture. The parliamentary struggle which ended in the passage of the Méline Tariff receives a rather detailed account. In the final chapter, Dr. Golob tries to deal with some of the effects of this tariff on the development of French agriculture between 1892 and 1910. His main conclusion is that the Méline Tariff was unable to bring to a halt the process of the relative decline of agriculture within the French economy but that it was able to attenuate and to retard this decline.

Dr. Golob has collected a considerable amount of factual material. The numerous references to contemporary speeches and articles afford a better and more intimate understanding of the atmosphere of the struggle for and

against protection. Throughout the book there are scattered indications of certain of the broader issues involved; as, for instance, the interrelation between protectionism and the democratic development of France.

Yet the book leaves a certain feeling of disappointment. In part this is due to the somewhat disconcerting willingness of the author to accept the doctrines and the programs of agricultural protectionists, or rather his unwillingness to lift the discussion above the level of the protectionist argument. Thus throughout the book he gives the impression that the alternatives faced by French agriculture were only protection or defeat in the competitive struggle. It is on one of the last pages of the book that one finds the following remark: "The whole policy of agricultural protection is nevertheless open to the accusation of timidity. Augé-Laribé writes that a nation courageous and conscious of its strength would have entered the competitive world of the late 19th and 20th centuries and accommodated itself to the necessities of the new day." But Dr. Golob hastens to add that "the question transcends economic policy and raises a question of national attitudes." It is difficult to approve of this self-restraint.

Even the sentence just quoted does not make it fully clear that the author is really aware that between the two alternatives—great shrinkage of the volume of agricultural production and the protection of its *traditional pattern*—there may have been a third solution; that is to say, an agriculture adjusted to competitive conditions by a change in its structure from the production of staples to that of converted products. The failure to raise this question prevents Dr. Golob from fully appreciating the *economic* significance of the rôle played by the *Société des Agriculteurs* as representatives of large land-owners. In this respect comparisons with the parallel development in Germany may have been quite instructive. For the same reason the author does not inquire at all into the highly important question of the distribution of protection as among grains and high-grade products. A closer analysis of the table of tariff rates he gives on page 174 would have shown that the tariff actually protected grains *at the expense* of converted products. A comparison of the tariff rate on barley with that on hogs, for instance, shows that the foreign hog-raiser was given in the French market an advantage of about 7 francs per quintal over the French producer. Thus the tariff not only was not placed in the service of the adjustment to competitive conditions in agriculture; it actually made such adjustment more difficult, and, in fact, almost necessarily led to further upward revisions of the tariff rates.

In a certain sense, these deficiencies of the book are related to the "synthetic method" in history, as used by Dr. Golob. This method, as Dr. Golob explains in the Foreword, implies a many-sided treatment of the subject. The Méline Tariff is to be viewed from the point of view of theoretical economics *and* as a culmination of a long protectionist campaign; as one phase in the development of French commercial policies *as well as* in the light of French political history.

In the concluding paragraph of the book, Dr. Golob seems to regard the irreconcilable character of the controversy between nationalist and liberal economics as a justification of the synthetic method. He seems to think that

if the economist has to take value judgments for granted, the presentation of economic history must faithfully register all positions. Far from becoming an effective synthesis, economic history, if it follows this course, grows into an agglomeration of facts and attitudes in which the reader, and perhaps the author, is likely to become hopelessly submerged.

Freedom from value judgments must not prevent the historian from selecting a significant angle under which the material is collected and arranged. Only in this way the parts of the inquiry can be "synthesized," that is, meaningfully related to each other. Dr. Golob's subject may have suggested a number of such approaches. The question of how the adjustment of agriculture to competitive conditions could have been achieved and to what extent and from what causes this was prevented by the adoption of the Méline Tariff is only one of them. To be sure to obtain an intelligent answer a number of various data, economic, political, social, are necessary, and Dr. Golob is certainly correct in trying to widen the scope of his inquiry. But this variety of data can result in a "synthesis" only if they are subordinated to a leading point of view. Dr. Golob's failure to work out such an approach results first in the fact that a number of important issues are raised only in order to be dropped abruptly, thus providing hints rather than serious treatment; and second, that a discrepancy arises between the amount of material assembled and the scope of its interpretation. It would seem that the same basic deficiency limits the author in the discussion of the effects of the tariff merely to the question as to whether the expectations or predictions of the one or the other side were justified by subsequent developments. In other words, the effects of the Méline Tariff are largely treated in terms of arguments and counter-arguments used during the protectionist campaign.

Dr. Golob has performed a service in collecting a great deal of material worth rescuing from oblivion. A greater degree of independence from the actors of his drama and a more generous use of the tools of economic analysis would have made it a more significant book.

ALEXANDER GERSCHENKRON

Washington, D.C.

Business Finance; Insurance; Investments; Securities Markets

Industrial Life Insurance in the United States. By MALVIN E. DAVIS. (New York: McGraw-Hill. 1944. Pp. xii, 399. \$2.75.)

This book, which gives a strictly factual account of industrial insurance by an author well qualified by long experience to write with authority, will be welcome to all who are interested in making a realistic appraisal of the function and value of privately operated industrial insurance in the national economy. The industrial insurance business has, in recent years, been the subject of severe criticism notably, in the United States, in the Report of the Temporary National Economic Committee and, in Great Britain, in the

Beveridge Report. In both countries these criticisms have been vigorously met by the private companies. Mr. Davis's book furnishes a wealth of material by which the merits of the controversy can be weighed.

The importance of industrial life insurance in the economy of the nation is evident from the fact stated in the Preface to this book that, at the end of 1943, more than fifty million people in the United States, chiefly of wage earning families, were enrolled as industrial policyholders and owned \$24,500,000,000 of such insurance. This is about one-fifth of the total life insurance of all kinds—ordinary, group and industrial—in force in this country, exclusive of national service life insurance. Three-fourths of it is in the three large companies identified with this class of business—Prudential, Metropolitan and John Hancock. That industrial life insurance fulfills an important economic function is demonstrated by surveys taken by one of these companies, which showed that in the great majority of the families in which industrial death claims were paid there were no other savings available and that in most cases where other savings existed these were insignificant in amount.

Criticisms of the industrial insurance system have been chiefly on the grounds of its alleged excessive cost and high lapse rate as compared with other forms of insurance. Thus, in the *Study of Legal Reserve Life Insurance Companies*¹ prepared by the Securities and Exchange Commission for the information of the Temporary National Economic Committee, the conclusion is reached that:

There is ample evidence that the heyday of industrial insurance is over. It is clear that industrial insurance has failed to provide efficient and inexpensive protection for low-income families which is its essential purpose and that it has created unfortunate social problems of serious consequence.

1. Though sold to persons least able to afford life insurance, industrial insurance is the most expensive form of life insurance which companies have devised.

2. Over 95 per cent of the industrial policies written terminate before the ultimate purpose is realized.

3. It is frequently sold by high pressure and overbearing sales methods which result in an economic maldistribution of policies within the family group.

In its final report² the T.N.E.C., on the basis of these conclusions, made the following recommendation:

A fundamental change in the conduct of industrial insurance should occur. Otherwise its eventual elimination may be necessary. The primary responsibility for the change lies with the companies issuing such insurance and the States which supervise them.

If these criticisms are well-founded they would constitute a very serious indictment of the whole system of industrial life insurance and of those who have been responsible for its operation. In the author's opinion they are not

¹ Monograph No. 28 printed for the use of the T.N.E.C. (Washington, Supt. Docs., 1940.)

² Final Report and Recommendations of the Temporary National Economic Committee. (Washington, Supt. Docs., 1941.)

well-founded. It is asserted as a fact that the investigation of the life insurance business by the S.E.C. was conducted in an atmosphere of hostility to the companies. No adequate opportunity was given to them to present their rebuttal of adverse testimony much of which was given by those who were not well qualified or fully informed. In the reviewer's opinion, Mr. Davis covers the subject matter of these criticisms fairly and impartially, properly emphasizing the fact that much of the criticism of the industrial insurance system is based on information which is out of date, incomplete, superficial or misleading.

As to cost, Mr. Davis points out that, from its very nature, industrial insurance must cost more than ordinary chiefly because of the smaller average policy, the mode of collecting premiums, the much more extensive service to policyholders (including free nursing and other welfare services) and the higher mortality experienced among the industrial classes. He shows from the statistics of his own large company that the cost is, in fact, *not* excessive, the expense rate being only slightly higher than for ordinary insurance on a monthly premium basis while the mortality cost reflects the experience among the policyholders. He shows also that both expense and mortality rates have been very materially reduced in recent years through changes in administrative methods and because of improvement in mortality experience. The fact is, however, that at present, mortality among industrial policyholders is about 120 per cent of that among ordinary policyholders and this in itself naturally results in a higher cost than for ordinary insurance.

Criticisms based on the allegedly excessive rate of lapse among industrial policyholders are likewise shown to be without sufficient justification. For example, the assertion of the S.E.C. that over 95 per cent of industrial policies lapse "before the ultimate purpose is realized" is misleading since it takes no account of the benefits received by those who terminated their policies before death or maturity and in addition conveys quite a wrong idea of the actual termination rates. Mr. Davis illustrates this by a study made in his company covering all policies terminated in 1941, which showed that only a fraction of 1 per cent of the premiums on these policies were paid on policies lapsing before they were entitled to a non-forfeiture benefit. The total voluntary termination rate among industrial policies in the Metropolitan was 2.4 per cent in 1943 although this was abnormally low due to favorable economic conditions. The normal rate is between 5 and 6 per cent which is not unreasonably in excess of the rate on ordinary policies when the fundamental differences are recognized. Lapse in the first year is, of course, relatively high, as it is in all forms of voluntary personal financial programs; but the early lapse rate has been greatly reduced through improvements in administrative methods and procedures, while because of the liberal terms of present contracts the financial loss to policyholders, through early lapse, is extremely small. Here also there has been a great improvement in recent years. In the Metropolitan the lapse rate in the first half year of 1940 was less than one-half of the rate experienced in 1935. In 1943 it was less than one-third of the 1935 rate.

Criticism as to high-pressure sales methods and economic maldistribution

has also largely been based on information which is out of date. Improvements in the methods of compensating industrial agents which stress the net increase in the agent's "debit" rather than the volume of new insurance, as well as administrative rules aimed at the elimination of over-insurance, have been in operation in the larger companies for some time and have largely, if not entirely, removed the basis for such criticisms.

It must not be supposed from the foregoing that this book is, in any sense, an apology for the industrial life insurance system. It was not written as a reply to critics of the system but to furnish an historical and factual account of its origin, development and operative processes and to give reliable and up to date information about it.

There is no reference in the book to proposals, both here and in Great Britain, that the primary function of industrial insurance—namely, "to provide funds to meet expenses incident to the last illness and death of every member of the family and, at the death of a wage-earner or housewife to make available additional sums to help carry the family over the readjustment period"—can and should be assumed by the government through an extension of the system of national social insurance. The private companies are, naturally, opposed to any such assumption of their functions by the government, which, in view of the wide scope of their operations and for other valid reasons would, in their opinion, be an unnecessary and unwarranted interference with the development of private enterprise.

JOSEPH B. MACLEAN

New York

**Public Control of Business; Public Administration;
National Defense and War**

The Liquidation of War Production. By A. D. H. KAPLAN. A research study of the Committee for Economic Development. (New York and London: McGraw-Hill. 1944. Pp. xv, 133. \$1.50.)

This is a sensible, well written, and useful book. It is not marked by penetrating analysis; a number of difficult problems are skipped over too hastily; and the author is perhaps more optimistic than the facts warrant. Despite these weaknesses, Professor Kaplan is to be congratulated on the good sense, broad perspective, simple style, and considerable expository ability he has blended in this monograph. And the Committee for Economic Development is to be complimented on the high level of its research studies thus far published. It is gratifying to see economists and business men joining forces in this way to bring the objectivity and tools of economic analysis to bear on the critical problems facing government and business in the years ahead.

In two paragraphs which are a model of succinctness, Professor Kaplan summarizes his main conclusions as follows:

It would be idle to pretend that the liquidation of war production is not

one of the most complicated economic tasks which the nation has had to face. But large as the magnitudes are, they do not justify defeatism. Given the necessary freedom of negotiation and the elimination of irrelevant procedures, the area of dispute in contract settlement can be reduced quickly to less than a billion dollars of debatable costs. Given continuous progress in adjusting the procurement program to prudent military requirements, the quantity of the prospective surplus on the domestic market (excepting aircraft and ships) will be less than the equivalent of 2 months' prewar retail sales. The accumulated government war plant, when analyzed for its convertibility to postwar use, leaves us with a net effective addition to peacetime plant of possibly 5 billion dollars. This addition is equivalent to that of 2 normal prewar years, and will not cover the deferred requirements of industries that were stopped from making the necessary capital outlays during the war.

These are all manageable totals, if we can mobilize the combination of careful preparation, clearly defined policy, and superior administration (p. 121).

The chapter on contract cancellations considers both the broad problem of programming contract cancellations and the more technical question of achieving prompt and equitable settlement once contracts are terminated. With respect to the criteria which should govern the planning of cancellations, Professor Kaplan has a useful discussion of the more important issues which are relevant and offers some positive recommendations. He particularly urges—and quite rightly—that contracts *not* be continued merely to postpone the evil day of shifting workers out of swollen war industries into more permanent sources of employment. He perhaps pays less attention than he should to the complementary problems of effecting a prompt and healthy reconversion—for example, through the demobilization of controls—but this lack is probably occasioned by the existence of other C.E.D. studies on these topics.

Professor Kaplan estimates that total surplus stocks owned by the government at the end of the war will amount to about 60 billion dollars. Of this, he disregards 45 billion dollars as representing ordnance-type items not saleable through commercial channels. Of the remainder, only 6 billions will remain in the United States and require domestic disposal. I cannot but feel that he unduly minimizes the problems of surplus disposal facing us. He excludes ordnance-type items because they do not have an impact on commercial markets. But this treatment ignores the highly important problem of scrap disposal.¹ Ships and aircraft are also included in the 45 billions of which he takes little account.² While the author recognizes that his conclusions regarding the magnitude of the over-all surplus problem must be modified to take account of large surplus stocks of particular items, his emphasis on the impact on normal commercial markets leads to relative neglect of some of the most serious disposal problems that the government faces. I wonder, also,

¹The problem of scrap disposal is very briefly mentioned on p. 71, but, so far as I can see, his estimate of 15 billions in surplus stocks to be disposed of makes no allowance for military scrap eventually entering commercial channels. (See p. 67.)

²Not quite two pages are devoted to the post-war surpluses of aircraft and shipping, and the discussion adds little to our knowledge of the subject.

whether the large stocks in the Pacific area at the close of the war with Japan will all be disposed of abroad, as he apparently assumes.

In the chapter on disposal of government-owned plant and equipment, as in the other chapters, the author has some very sensible things to say—for example, on the need for a coördinating authority and clarification of government policy, the undesirability of the government's rushing to sell at sacrifice prices facilities which can be gradually absorbed by the economy into useful and profitable work, and the desirability of a wide distribution of facilities. But his recommendations are sometimes not very positive, and more than once he fails to treat adequately basic issues. For example, a table on page 101 indicates that 72.4 per cent of the government investment is in plants which cost \$10,000,000 or more; 31.1 per cent, in plants each with a cost of at least \$50,000,000. In these circumstances, how can we achieve a "wide distribution of facilities" and "permit full opportunity for participation by small business" (p. 109)?³ As in the chapter on surplus stocks, the special problems connected with aircraft and shipbuilding are inadequately considered. The fact that these great chunks of investment are not readily convertible to profitable civilian employment does not solve the problem. And it raises additional questions concerning scrapping, salvage of tools and equipment, and so on. One may agree with the author's conclusion that, given the extent of conversion possible, the government-owned facilities "can satisfy only a fraction of the total postwar demand of industry for currently deferred replacement and expansion of its plant and equipment" (p. 110). But there is too much emphasis on the *total* aspect of the problem; the areas of primary difficulty are not sufficiently investigated; and too little attention is paid to the special problems arising from the disposal of facilities not readily convertible to civilian production.

Throughout the book, with respect to all three of the major problems considered, the author has relatively little to say about the administrative machinery which has been developed or should be established to secure the results desired. General suggestions are offered. But the second paragraph of his conclusions quoted early in this review contains such a tremendous "if" that the reader is entitled to more detailed analysis of the organizational aspects of the problem than the author in fact provides. The "combination of careful preparation, clearly defined policy, and superior administration" which is necessary leads this reader to wonder whether we are dealing with as manageable totals as the author suggests. But assuming that the estimates of the economic magnitudes are not greatly in error, perhaps the author's and the C.E.D.'s purpose is best served in this way. The challenge is clearly posed, to government and business, to secure the planning and coördination required. And for those who do the planning, as well as for anyone who seeks to understand the issues involved in liquidating our war production, this volume should prove a very useful reference.

R. A. GORDON

Washington, D.C.

³On p. 102, there is brief reference to the need for dismantling and breaking up large plants—"where this is practicable"—if small business is to have the chance to acquire "any significant part of government-owned facilities."

Industrial Organization; Price and Production Policies; Business Methods

Business Leadership in the Large Corporation. By ROBERT AARON GORDON.
(Washington: Brookings Inst. 1945. Pp. xiv, 369. \$3.00.)

This book is provocative in content if not in style. The style is straightforward, perhaps somewhat on the heavy side. The content, which is sufficiently indicated by the title, is of great importance to the three classes of readers to whom the book is addressed—economists, business men, and public-spirited members of the general public. Because Dr. Gordon has endeavored to write comprehensively on so broad a topic and to address simultaneously so many different readers, his book will appear sometimes highly technical and sometimes very commonplace. However, the book is a genuine contribution to economic literature, for it will add to knowledge and, more important, will provoke controversy, the life of thought. To get much of value from the book the reader will have to work. He will have to check Dr. Gordon's factual observations against such observations as he has been able to make himself, and he will have to think carefully in appraising the analysis and the arguments.

The subject is difficult because we have inadequate information, because we have great difficulties in making accurate observations, and because we have trouble with words and concepts. One of the first tasks in appraising the book is to determine the attitude of the author. As a first approximation, Dr. Gordon's attitude may be inferred from the quotations which follow. (Italics mine.) In the author's acknowledgments (p. x) he mentions his indebtedness to business men and then goes on: "All major statements of fact have been submitted to the companies mentioned, and such comments as they have made have been carefully considered; but *I have ultimately relied on my own interpretation of the facts* in the light of these comments." Later (p. 252, n. 12) he says: "Corporation executives, particularly the more prominent ones, and wealthy individuals generally decry the fact that the 'New Deal' has fostered a feeling of class-consciousness among workers and low-income groups. Class-consciousness, however, is not new in this country, and *it is most pronounced among those groups who decry it while not recognizing the phenomenon among themselves.*" In his conclusion (p. 347) Dr. Gordon states: "... merely professionalizing the board of directors is not enough to achieve competent business leadership and at the same time the *necessary* independent check on executives," and goes on (p. 349) to ask if "we could [should?] give a government agency, perhaps the Securities and Exchange Commission, the right to approve management selection of directors." Earlier (p. 259, n. 26) Dr. Gordon remarks: "Except for specialists such as market analysts and the like, economists as a professional group have had *surprisingly* little influence on businessmen."

If Dr. Gordon has accurately appraised the treatment economists have given business leadership, it is surprising that he should be surprised at the influence of economists as a professional group. In explaining "the nature of the prob-

lem," he remarks (p. 7): "The fact that businessmen, in pursuing the end of maximum profits for their firms, must adapt themselves to changing market conditions led the classical economists (and many modern ones) to look upon the business leader (entrepreneur) as a purely colorless medium, through which stimuli were transmitted to various parts of the economic organism. Thus the entrepreneur was assumed to be a passive agent, reacting to his environment but not in turn having an independent influence of his own."

Dr. Gordon's interpretation of the other economists appears to be most misleading. It is of course true that many economists, both classical and modern, choose to ignore the influence of the business leader at some point in their writings, especially when they are trying to focus attention on the critically significant factors in the problem they have selected. But there is a world of difference between saying that an economist chooses to ignore a fact and saying that he is ignorant of it. For this reviewer, Dr. Gordon has failed to do justice to his predecessors and by that failure has been led into an overstatement of the significance of his own work for economic theory. Much of his discussion of the significance for economic theory of business leadership in the large corporation appears confused for still another reason. He contrasts the facts of business leadership both with the "assumptions" of classical economics and with the facts about the entrepreneur at the time the classical economists were writing, and the two contrasts are not kept apart.

The author's discussion of "nonfinancial incentives" (pp. 305 ff.) is none too clear, even considering the enormous difficulties of the subject. Dr. Gordon lists: "the urge for power, the desire for prestige and the related impulse of emulation, the creative urge, the propensity to identify oneself with a group and the related feeling of group loyalty, the desire for security, the urge for adventure and for 'playing the game' for its own sake, and the desire to serve others." The reviewer does not doubt that all these motives are present, although he would like to remark that there are wide individual differences among business leaders and that a not dissimilar list might be drawn up for "economists as a professional group." The principal difficulty in understanding Dr. Gordon's discussion comes from his failure to indicate any method of observation or operation whereby the presence and relative importance of any one of this list may be distinguished. This difficulty is of some practical importance, for it would appear that Dr. Gordon believes that we now have no lack of incentives to top management. At least he says (p. 292): "The decline in the use of the bonus since 1929 does not seem to have led to any decline in executive morale or to any tendency for top management to work less hard or less effectively." Of course, a reader might interpret this statement to mean that executive morale has declined but for other reasons. This reviewer does not know whether Dr. Gordon has observed any decline or whether Dr. Gordon has a method of finding out whether any decline has really taken place. As Allyn Young once said of another author, "I do not feel that [this] interesting discussion of non-commercial incentives substantially increases our stock of useful knowledge To be considered, also, is the notorious unreliability of the data available for such a study."

Space will not permit any extensive examination of Dr. Gordon's observa-

tions and conclusions. Two of his most important generalizations concern the place of the corporation's chief executive and board of directors. The chief executive is pictured, not as the autocrat, but as the leading figure in an oligarchy of top executives. A reader who endeavors to check this generalization is of course dependent on his own limited observations. This reviewer's opinion would be that Dr. Gordon is correct in seeing an oligarchy but has gone too far in reducing the difference between the position of the president and the other members of the oligarchy. So far as the board of directors is concerned, the reviewer's opinion is very similar; the board of directors has generally more real economic functions than are given in Dr. Gordon's picture. It may be worth remembering, moreover, that in studying legal descriptions of the powers of the board and the powers of top management careful attention must be given to the differences between legal terminology and everyday English.

Enough has been said perhaps to indicate why the reviewer believes that Dr. Gordon has made a significant contribution to economic literature. It is much to be hoped that Dr. Gordon and others will continue to work in this field. Perhaps the greatest additional contributions will come from studies which appear as monographs or articles in periodicals and in which attention is more sharply focused.

R. S. MERIAM

*Graduate School of Business Administration
Harvard University*

Transportation; Communication; Public Utilities

Civil Aviation and Peace. By J. PARKER VAN ZANDT. (Washington: Brookings Inst. 1944. Pp. x, 157. \$1.00.)

Government Policy Toward Commercial Aviation. By GILBERT GOODMAN. (New York: King's Crown Press. 1944. Pp. 122. \$1.60.)

The aviation industry could well afford to buy several hundred copies of Dr. Van Zandt's *Civil Aviation and Peace* to be distributed among persons who will be influential in determining future policies dealing with the control of civil aviation. This is not a disparaging remark designed to dismiss the book as propaganda; on the contrary, it is a compliment to the well-documented facts, the carefully presented arguments, and above all the enthusiastic style of Dr. Van Zandt's study.

In ninety-eight pages of text, not only are past attempts and present proposals to regulate civil aviation evaluated, but also the contribution which civil aviation can make to international economic stability through possibilities of mass air travel. It is the author's conclusion that a program of maximum use of air transportation is a positive contribution to the maintenance of peace.

When it is pointed out that international air transportation has been a relatively minor part of civil aviation, it follows that control over these activities alone would be of little importance in any attempt to de-militarize

the nations of the world. Not only have the domestic airlines performed a great variety of vital wartime services, but even the smallest and slowest civilian aircraft have been able to serve in many ways. The best measure of the air power of any nation, Van Zandt points out, is its ability to produce aircraft quickly and in great numbers. This ability is exceedingly difficult to control.

After analyzing in considerable detail the past attempts at international control of aviation and the more important proposed controls, Van Zandt concludes that "international supervision of civil aviation enterprise on the scale called for is utterly impracticable" and that there "is not the slightest prospect of its universal acceptance." Those who believe otherwise will find it necessary to provide an answer for many strong arguments advanced in this book.

The study ends with an analysis of the contribution toward international economic stability that could be made by the expenditures of Americans traveling abroad and the rôle that international air transportation might play in encouraging such travel if it succeeds in bringing its fares down to the "right" price of about three cents a mile and providing world-wide service at high speed. One important element in international economic instability has been the continued exports balances of the United States while a great creditor nation, thereby causing a shortage of dollars in foreign trade. Any program, therefore, which would encourage Americans to travel abroad would help to overcome the shortage of dollars available to foreigners. On the assumption that American travelers in the post-war period might spend an average of \$300 abroad (which is 63 per cent of the 1926-30 figure) and that this would be offset by \$50 from similar disbursements of foreign travelers in the United States, there would be a net dollar credit of \$250 per United States overseas traveler. On this basis, four million passenger trips abroad by Americans each year would transfer a billion dollars net credit. Van Zandt is careful to emphasize that this is not a traffic prediction, but only a possibility based upon encouragement rather than restriction of international civil aviation. Nevertheless, the enthusiastic style in which the book is written leads the reader to believe that almost any traffic possibility might be realized in the next decade or two.

Valuable data are presented in three appendices. In Appendix A is reprinted the report of the subcommittee on aircraft in connection with the international Conference on the Limitation of Armament in 1921-22. In Appendix B are numerous statistical tables relating to civil aviation, and in Appendix C are interesting data relating to international travel.

In contrast with Van Zandt's carefully prepared study, the 122-page volume, *Government Policy Toward Commercial Aviation*, by Gilbert Goodman is decidedly disappointing. Although it was published in 1944, the manuscript was apparently completed about 1940 and no attempt has been made to consider the many decisions of the Civil Aeronautics Board since 1940. If there were no attempt made to evaluate the policies of the Board, this would not be a serious criticism, but Goodman does discuss these policies and indicates

that at the time he prepared the chapters (about 1940) there was an inadequate number of decisions on some phases of regulation for complete assurance that the policies could be discerned.

In so far as the study deals with competition and the regulation of air mail rates in the period begun by the Kelly act of 1925 and ended by the Civil Aeronautics act of 1938, it is a quite competent analysis of the several laws on the subject and their administration. For example, in his evaluation of the policies of Postmaster General Brown, Goodman contributes some additional information and arguments which tend to support this official's actions. However, with a few exceptions of this kind, his study is considerably less searching than others (such as F. A. Spencer's *Air Mail Payment and the Government*: Brookings, 1941) already published prior to 1944.

Perhaps the major criticism which must be made is the existence of numerous errors in the text, in the footnotes, and in the bibliography. Certainly there was sufficient time between 1940 (or thereabouts) when the manuscript was prepared and 1944 when the book was published to eliminate these. Only a few can be listed in a review, but these will serve as samples. In the bibliography he lists "David, P. *Economics of Air Mail Transportation*. The Blakiston Company, 1941." This volume was, in fact, published by The Brookings Institution in 1934. He refers to the Report of the Federal Aviation Commission as Senate Document No. 15, 75th Congress, 1st Session, but it is a document of the 74th Congress. He lists the "*South American Journal of Economics*, 1936, Vol. 4." when the *South African Journal of Economics* is undoubtedly meant and when it is inconceivable that all the articles for the entire year deal with aviation, although E. D. Weiss does have an article, "Commercial Air Transport," in three parts in the June, September and December, 1936, issues. He points out on page 68 that the compensation for carrying air mail "was not to exceed \$.40 per airplane mile regardless of the size of the mail load." And in the second sentence thereafter he relates that "a carrier whose mail loads averaged 700 pounds per plane received \$.33 $\frac{1}{3}$ per airplane mile for the first 300 pounds, \$.10 for the next 300 pounds—but nothing for the last hundred pounds," or a total of \$.43 $\frac{1}{3}$.

In addition to errors, there are occasional statements which might shake the confidence of a reader in Goodman's judgment as well as scholarship. For example, on page 5 where the federal airways system is being discussed, it is stated, "Since kinetic energy of planes carries them thirty miles after their motors fail, providing landing fields at thirty-mile intervals along the entire route made it possible for planes to land safely at all times." No qualifications of this statement appear in the text or in the footnotes, and it therefore appears to sound entirely reasonable to the author, although if true it would come as a comforting surprise to a pilot whose motors failed at an altitude of one hundred feet. Authority for the statement is given in a footnote, "Bureau of Air Commerce, Annual Report, p. 5," but since the Bureau issued a considerable number of annual reports, it is difficult to know which page 5 to consult for verification.

It is hoped that Goodman will not be discouraged by the defects in this book. Certainly there is need for scholarly research in the field of air trans-

portation and, if some of the pitfalls of inadequate care in his research can be overcome by Goodman, he will find that he can build on the knowledge displayed in *Government Policy Toward Commercial Aviation*.

CLAUDE E. PUFFER

University of Buffalo

Labor and Industrial Relations

Wages of Agricultural Labor in the United States. By LOUIS J. DUCOFF. (Washington: U. S. Department of Agriculture, Bureau of Agricultural Economics. 1944. Pp. 193.)

In recent years our knowledge of agricultural wage workers has grown considerably. The widespread unemployment, underemployment and poverty of farm laborers in the depression inspired a large number of statistical studies and field surveys, as well as novels and nontechnical works. The war period, like all periods of high economic activity and relatively full employment, has seen a large-scale movement of workers away from the farm and into the steadier work and more adequate wages to be found elsewhere; the exaggerated fears of labor shortage between 1940 and 1942 and the considerable tightening of the labor market in 1943 and 1944 gave further impetus to the collection of facts and figures concerning agricultural workers.

Much of this research has been done by government agencies and investigating committees. Migratory laborers and other farm workers on relief were studied exhaustively by the Works Progress Administration. The influence of organized agricultural employers and processors in preventing the organization of their workers was brought to light by the LaFollette Committee. The casual and disorganized character of the agricultural labor market was described by the Tolan Committee. Throughout this period, the Department of Agriculture has expanded and refined its reporting of agricultural employment and wages, and has published a number of technical studies, including the present one, on these subjects. It cannot be said that any of this activity has led the way to a federal program for agricultural labor, but at any rate sufficient economic background for such a program has been accumulated.

Wages of Agricultural Labor in the United States summarizes much of the research which has been conducted by the Bureau of Agricultural Economics, covering the period from 1910 through 1943. The concentration of agricultural production, commercial output and wage workers on a minority of large-scale farms is described in the early chapters. Wage rates are analyzed by method of payment, geographical area, size and type of farm; Mr. Ducoff shows that agricultural wages and earnings are extremely vulnerable in periods of depression and unemployment. As might be expected in an unprotected labor market, agricultural wage rates are shown to vary closely with farm prices, cash farm income and net farm income; over the past quarter-century, however, the relative position of the wage worker in agriculture has generally deteriorated as well as the status of agricultural labor in comparison with

urban employment. Chapter VII, on the earnings and welfare of farm wage workers and their families, corroborates previous evidence on this subject; even in 1941, after agricultural wages had risen considerably above 1939 levels, 81 per cent of farm-laborer families received cash incomes of less than \$1,000, with an average of \$675. As Mr. Ducoff states: "The record over the three decades preceding this war is one of neglect of the interest and welfare of farm laborers. . . ."

The study well illustrates the virtues and vices of government research as compared with private or university research. Among the virtues are better facilities for the collection and tabulation of basic statistics, easier access to related information, more adequate personnel for staffing research projects, and other advantages of large-scale production and division of labor. Among the vices are a passion for elaborate statistical tables which fail to prove any point, an official timidity in making professional interpretations, and what appears to be a virtual determination not to ask or answer significant questions.

Some of the deficiencies of the present study are the result of flaws in agricultural concepts, particularly the concept of a farm. When a three-acre subsistence plot is classified in the same category as a 5,000-acre truck farm, complete with packing sheds and railroad facilities, statistics of average income, average wage bill, etc., can hardly be significant. Moreover, it has been recognized for at least a decade that sharecroppers are properly classified as farm laborers, but the Census Bureau and the Department of Agriculture continue to list them as operators, to the incalculable detriment of agricultural statistics.

A central theme is lacking in this study; the summary is good, but several chapters consist of an endless parade of statistical relationships, of dubious significance to an understanding of the agricultural labor problem. An economic analysis of low wages and earnings in agriculture would have been more profitable, showing the influence of spasmodic and discontinuous labor demand, a disorganized labor market, the cultivation of an oversupply of workers, chronic recourse to cheap labor sources, and the use of federal and state relief as a supplement to wages.

It is with respect to federal agricultural labor policy that the book is most disappointing. As Mr. Ducoff states, "Realization of parity objectives for agriculture with other industries should also imply a parity of responsibility to pay and maintain adequate wages and other conditions of employment." Mr. Ducoff makes it plain that the status of farm workers has deteriorated badly since 1910, and that the improvement in agricultural wages cannot be expected to outlast the war. Unfortunately, his policy suggestions are heroically brief, entirely unspecific and heavily veiled in a pall of official discretion. The time is long overdue for a detailed and specific blueprint for legislative and administrative action—to maintain agricultural wages at present levels or higher, to provide old age and unemployment insurance, to protect the rights of association and organization, and to establish an adequate system of agricultural labor exchanges. Much could have been done during the war period for the purpose of conserving and utilizing manpower, but our farm

labor policy has been dominated by an indiscriminating "freeze of labor" and a hectic search for new supplies. One may hope that the Department of Agriculture, which dedicated itself in 1937 to the welfare of "those who till the soil for hire as well as those who cultivate it as operators and tenants," will soon point the way toward a more satisfactory policy.

ARTHUR M. ROSS

Washington, D.C.

Social Insurance; Relief; Pensions; Public Welfare

The Price of Social Security. By GERTRUDE WILLIAMS. (New York: Oxford Univ. Press. 1944. Pp. vii, 199. \$3.75.)

This book is a series of essays on labor mobility and wartime manpower controls.

It deals only to a limited extent with the subjects which one would expect to find in a book called *The Price of Social Security*. Indeed, the author has not stated whether she limits "social security" to the social insurances, or whether she means by "social security" the growing range of state activities designed to protect the individual from the effects of fluctuations in economic activity. As a discussion of the price paid for the social insurances, the book is inadequate. Of the array of social insurances in Great Britain, only unemployment insurance is dealt with. Such matters as the economic implications of financing unemployment insurance by tripartite contributions, the effects of social insurances on the supply of labor and the bearing of social insurance payments on individual incentive are not mentioned.

In the chapters relating to labor mobility, Mrs. Williams is concerned primarily with the growing areas of rigidity in the labor market which prevent a proper adjustment of labor supply to demand, both occupationally and geographically. She discusses the effect on the mobility of labor of such factors as wage rate adjustments at an artificial level by collective bargaining, lack of adequate guidance of workers both to areas where jobs are relatively plentiful and to potentially expanding occupations, social insurance payments, especially unemployment insurance, housing shortages and various types of monopolistic employer practices.

In order to increase labor mobility, the author urges, among other things, that greater use be made of the employment exchange machinery than was customary before the war, even requiring employers to notify the exchange of vacancies and withdrawals; that the right to unconditional unemployment insurance benefits should be strictly limited in duration; that as a condition for receiving unemployment insurance benefits the worker should be required to attend a training course; that the Ministry of Labor should have the power to direct applicants whose unemployment benefits have been exhausted to alternative employment even if this entails a change in locality or occupation.

While it is difficult for an American to evaluate the economic and social forces that affect employment in England, it seems to this reviewer that Mrs.

Williams places undue stress on labor mobility as a cure for the employment problem that will face Great Britain after the war. The inarticulate major premise that unemployment is largely traceable to the absence of workers in the number and the occupations required at the points where jobs are available appears to permeate the book. This paragraph, for example, summarizes Mrs. Williams's criteria that must underlie a well-designed program for training centers: "It must not be work that would be undertaken as a paying concern in the ordinary way of business, since this would create a new body of unemployment in order to occupy an existing set of unemployed persons. If it is to keep alive industrial efficiency, it must be interesting and educative; it must be useful; it must be such that workmen of widely differing experience can take advantage of it and learn something from it, and yet it must not be so attractive (as the unemployed occupational centres of the 'thirties often were) that men in attendance are unwilling to leave it to go back to normal industrial life" (p. 160). She does not mention here or elsewhere that the availability of jobs for those who have been trained is a factor to be weighed in establishing training courses.

The chapters relating to wartime labor controls in Great Britain, Germany and Russia stand quite apart from the remainder of the book. The analysis of manpower controls in Great Britain is particularly interesting. Mrs. Williams worked for a time in the Man Power Division of the Ministry of Labor and National Service, and her remarks on the means and efficiency of wartime labor market control in Great Britain present facets of the problem that are obscured in official discussions. To one who has followed the development and administration of manpower mobilization in this country, her observations have the ring of truth. They are particularly pertinent at a time when this country is pondering the questions involved in manpower legislation. She demonstrates, for example, that the existence of a manpower law, even of a more extreme type than will ever be adopted during this war by the United States, is no cure-all for manpower problems. The importance of continued reliance upon voluntary cooperation is stressed, and the necessity for effective administration under either a voluntary or compulsory system is given great weight. Mrs. Williams points out, for example, that, "If an appeal is made to the good will and patriotism of citizens to offer themselves for work, it is of the utmost importance that the jobs should actually be immediately available for those who respond."

In spite of National Service Legislation, they, even as we, find that persons quit their jobs in violation of regulations, and employers continue to hire at the gate. The British, too, are faced with the dilemma established by the desirability of allowing individual circumstances to be taken into account in directing people to work through local administration and the conflicting objective of securing equity and uniformity through central administration.

The sections of the book relating to the principal and operation of wartime labor market control in Great Britain were to this reviewer by far the most interesting and valuable.

WILLIAM HABER

Washington, D.C.

National Health Insurance. By HERMANN LEVY. (Cambridge: Cambridge Univ. Press. 1944. Pp. x, 366. \$4.50.)

This significant and timely volume is the fourth in a series of economic and social studies, of which Professor Bowley's *Studies in National Income* was the first, published by the National Institute of Economic and Social Research of Great Britain.

The present study is a carefully documented critique of the national health insurance scheme of Great Britain, a program which became effective July 15, 1912. The book is divided into seven parts. Part I sets forth the major characteristic of national health insurance and subsequent legislation; Part II describes briefly the categories of insured persons, and points out some deficiencies in the scope of insurance. Parts III, IV and V critically review the provisions of the present health insurance program, giving particular reference to (a) the general and special benefits; (b) the "flat-rate" system of cash benefit payment and the insufficiency of additional benefits in view of the British workers' budget; and (c) the types and adequacy of medical benefits and treatment under the scheme.

Part VI presents an analysis of the administrative organization and costs under national health insurance, and includes some pointed statistical comparisons of administrative cost ratios experienced by other national health insurance plans. Part VII presents the author's conclusions, and proposals which he is convinced are necessary in order to rehabilitate the British system of national health insurance and overcome its present major weaknesses.

This work was prepared prior to the issuance of the Beveridge Report, but it was not published until after this Report had been made available to the general public. A postscript chapter sets forth briefly the author's general appraisal of the Beveridge recommendations.

In this study Professor Levy has made a valuable contribution to the field of social insurance through his constructively critical appraisal of the national health insurance scheme of Great Britain. Throughout his appraisal he has brought together the evaluations of the Royal Commission (1926), the exhaustive studies in public health by Sir Arthur Newsholme (1931), the Political and Economic Planning Commission (1937), and other reports and studies. These have enabled the author to focus the spotlight on the major weaknesses of the present British systems of health insurance.

After a critical analysis of the scope, benefits, remuneration to the "panel" doctors, and administrative organization and costs of the British scheme, the author concludes that the system has proved of great value to the working people of the nation: "It has extended its scope from 15,000,000 (of whom 5,000,000 were already members of friendly societies) to almost 22,000,000 in the United Kingdom before the present war, and from the viewpoint of central administration there have been no major frictions or conflicts of an administrative nature during all these thirty years. Failures or irregularities by approved societies have been exceptional. The failures of National Health Insurance are not failures of administration within the prescribed framework" (p. 330).

But Professor Levy points clearly to certain basic shortcomings of the British system. The plan excludes dependants from the receipt of health in-

surance benefits. Flat rate cash benefits payments (now 18s. per week) are "ridiculously inadequate" (p. 331). The development and expansion of medical benefits have been slow; in fact medical benefits, chiefly consisting of the services of a general practitioner (panel doctor), are "as insufficient as cash benefits" (p. 333). Again, "home nursing, reconvalescence and follow-up treatment are among the most deficient sections of National Health Insurance" (p. 333). The approved friendly societies (through which most of the benefits are extended to their respective members) have demonstrated no desire to originate and pursue a constructive and dynamic policy of "health improvement" (p. 335). Finally, the unsatisfactory payment of doctors has restricted greatly the interest that the panel doctor can be expected to take in any single patient registered under his care (p. 334).

The author believes that these weaknesses are not inherent in the principle of social insurance, but rather that they are the result of administrative and financial deficiencies which can and should be overcome. He is convinced that "National Health Insurance can and should remain a separate statutory social service," and that "such a reform alone can ensure the economic basis for (a) the extension and increase of cash and treatment benefits which have become so necessary, and (b) that systematic and dynamic progress in preventive medicine and in the socialization of medicine which should crown the efforts of this social service" (p. 342). To effect these changes, therefore, the author proposes that new administrative bodies be set up, in the main rural or municipal, to take the place of the hundreds of independent friendly societies now serving as the administrative core of the system, and that large industrial establishments and other organizations be permitted to have their own sickness funds on the same basis as the statutory funds (p. 343).

Herein lies the great difference between the recommendations of this study and those ensuing from the Beveridge study. Professor Levy would revamp the administrative organization of the present system, and, after further modification, would make it the center of British national health services. On the other hand, the White Paper proposals presented to the British Parliament in February, 1944, and reflecting the Beveridge recommendations, would insure everyone in Britain, irrespective of means, age, sex, or occupation, complete medical services free of charge at government expense and administered largely through county or borough councils.

There is a point in this analysis from which the people of the United States can profit. The imminent enactment of compulsory health insurance in America, either upon a state basis such as is suggested by the health insurance proposals now before the California State Legislature, or upon a federal basis like that proposed in the Wagner-Murray-Dingell bill, suggests that legislation in this country must incorporate the lessons learned abroad from the actual operation of systems such as the ones in Great Britain, France, and Sweden.

Such analyses as that presented in the work of Professor Levy go far in pointing out the pitfalls to be guarded against in the formulation of a future health program for the United States.

PAUL A. DODD

*University of California
Los Angeles*

Consumption; Income Distribution; Coöperation

Economics for Consumers. By LELAND J. GORDON. 2nd ed. (New York: American Book Co. 1944. Pp. xiv, 666. \$3.75.)

This second edition of Professor Gordon's book, with its well-organized information about consumer spending habits and problems, will be found useful as a reference by teachers in the consumer field. The earlier edition, published in 1939, has been brought up-to-date by a discussion of the wartime problems of consumers and expanded by the addition of new material on such topics as weights and measures. Among the new sources on which Professor Gordon has drawn are the Twentieth Century Fund study *Does Distribution Cost Too Much?*, the Harvard Business School study *The Effects of Advertising* by Neil Borden, the final findings of the federal government's *Consumer Purchases Study*, and the 1940 Census. From first-hand knowledge of the Office of Price Administration he has compiled a detailed history of its work, which will be found particularly useful. The chapter would have been more valuable if he had included some discussion of the work of the War Production Board, with its control over consumer goods production and its experiments in working with consumers.

Professor Gordon has set out as his main objective "to discover and point the way to wiser consuming practices calculated to promote human welfare." He has shown clearly and in detail the pitfalls into which consumers fall when spending money, due to human frailty and to imperfections in the economic system. He gives much valuable advice and information regarding budgeting, buymanship, coöperative purchasing, insurance, shelter, investments, standardization of consumer goods, informative and grade labeling, weights and measures, and private and public aids for the consumer. His chapter on shelter contains only brief reference to government housing programs; the sections of the book dealing with health and insurance do not discuss the social security program or proposals for a national medical care program.

In addition to his practical advice for consumers, Professor Gordon has included a discussion of the rôle of the consumer in the economy. Not many economists today, however, are satisfied with the theories of pure competition which Professor Gordon uses as a working basis for his analysis. He takes as a starting point the assumption that consumers acting as rational "economic men" would unconsciously guide and control the economic system in the best interests of all, and his emphasis is mainly on laying bare limitations to this assumption and how they may be overcome. While the influence that consumers exert on the economy through their day-to-day buying is unquestionably important, it seems even more important for consumers to recognize that to an increasing degree their economic welfare is affected by the activities of the government and of organized groups, such as labor unions, farm organizations, business and professional associations. Within the framework of a free enterprise society, the conscious efforts of management, labor, government and consumers working together on problems of mutual concern are of great

importance. Professor Gordon, however, pays little attention to organized activity on behalf of consumers, except that of the consumer coöperative movement. As a matter of fact, many women's groups, professional organizations, civic, farm, and labor groups have worked, along with consumer coöperatives, for the protection and advancement of consumer interests. An economics "for consumers" hardly seems complete without specific recognition of the various ways in which consumers have tried to become more effective against highly organized special interest groups. In a text with a title "economics" it could be expected also that some attention would be given to economic theories such as those of J. M. Keynes and his followers who attach major theoretical importance to social controls over consumption and investment. It seems at least questionable for Professor Gordon to claim flatly that he has based his book on "established" economic principles.

A certain lack of realism in Professor Gordon's approach is evident in his suggestion for curing the political impotence of the coöperative movement "by affiliation with some political party whose aims and ideals most nearly coincide with those of the coöperative movement" (p. 396). An elaboration of this idea seems in order, since it is a commonplace observation that the coöperative movement includes many staunch Republicans and Democrats, as well as Socialists, Communists, and anarchists.

To take another example, in discussing the important question of the relation between consumer and producer interests, Professor Gordon says: "As consumers, workers are interested in an abundance of wealth at low prices; as producers they are interested in a scarcity of goods and services to yield high prices" (p. 383). It is questionable whether workers would subscribe to such a statement of their interests as producers; active and informed AFL or CIO members would certainly point out that the national policies of their unions have consistently called for full employment and full production.

According to Professor Gordon, the interests of workers as consumers take precedence over their interests as producers, a "simple truth" which has not yet "dawned" on American workers. He reasons that workers (as contrasted to others) should be consumers first and producers second because there are so many of them. This question of "precedence" of interest seems largely academic. Workers are interested in both the wages gained by collective bargaining and the quantity and quality of the goods they can buy with these wages. In other words, they are interested in their real incomes. Their interests as producers and consumers are not conflicting interests to which priorities must be given, as is evidenced by the fact that the major trade union organizations with their membership of fourteen million working men and women have given the fullest support to government price and quality controls. Arguments for wage adjustment since the freeze of January 1941 have been based on reports by their members of higher prices and lowered quality of goods found when shopping, and it is claimed that compensating wage adjustments could be made without the danger of inflationary price increases. These arguments seem a clear recognition by workers of the coördinate importance of prices, quality, and wages. Professor Gordon might have given credit to workers by recognizing the leadership trade unions have given in

working for more effective consumer legislation and for more consumer-minded legislators. Instead, he suggests that greater attention should be given to the consumer coöperative movement. The fact that workers apparently attach equal importance to their consumer and producer interests, and are turning to political action instead of consumer coöperation is an indication that Professor Gordon may have difficulty in getting wide acceptance for ideas which appear as "simple truth" to him.

HELEN SORENSON LATHROP

Schenectady, N.Y.

TITLES OF NEW BOOKS

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- CAPOCELLI, G. *L'Italia nel passato e nel presente: letture storiche e notizie sull'Italia contemporanea: an Italian reader*. Rev. (New York: Holt. 1930: 1945. Pp. 409. \$1.60.)
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Gustav Cassel 1866-1945

On January 15, 1945, Gustav Cassel died, the dean of Swedish economists and one of the most renowned economists throughout the world in the present generation. Cassel's international repute rested upon his extensive writing through the greater part of his seventy-eight years of life, his active participation in public affairs both at home and abroad, and his influence as a teacher and publicist.

Cassel's contributions to the literature of modern economics are found principally in the four fields of value theory, monetary problems, the analysis of business cycles, and the critique of socialism. His first notable publication was made in the field of value and distribution theory in *The Nature and Necessity of Interest* (1903). He was chiefly concerned in this work to demonstrate a separate productivity inhering in capital, explicable on the grounds of scarcity of supply without recourse to psychological determinants; but the treatise illuminated the theory of capital in many ways. The services of capital would be scarce and valuable even in a socialist state: the problem of why interest exists should not be confused with the ethical issues raised by the possibility of living through owning. Students of capital theory will recall also Cassel's suggestion of what we now call a "backward rising" capital supply curve, and his idea that interest rates (expressed as the number of years purchase) may have some connection with average life expectancy.

His systematic works in value theory include *Outlines of an Elementary Theory of Prices* (1899), *Fundamental Thoughts in Economics* (1925), and *A Theory of Social Economy*, first published in German in 1918, but not available in English until 1924. Translated into several languages, the *Social Economy* came quickly to be a standard treatise and a widely used textbook in universities throughout the world. It departed from the neoclassical tradition in rejecting what the author regarded as unprofitable speculations as to the subjective attitudes of suppliers of economic services. Though this approach would be favored by the behaviorist psychology, Cassel's substitution of a mere principle of scarcity for the idea of subjective value underlying the phenomenon of price has not found general acceptance, witness the current popularity of the indifference analysis. The work recommends itself chiefly as a particularly lucid exposition of price theory along the lines of the Walras tradition.

Cassel's influence upon the world of practical affairs has been largest, however, in the realm of monetary phenomena. It is here that we find the largest part of his writing for scientific journals and newspapers, and his excellent tracts for the times: *The World's Monetary Problems* (1912), *Money and Foreign Exchange after 1914* (1922), *Outlines of the Development of the*

Monetary System (1931), and *The Downfall of the Gold Standard* (1936). Monetary analysis and policy in the inter-war years were strongly influenced by these writings and by Cassel's participation in the numerous international conferences of that period.

The idea of "purchasing power parity" as the equilibrium value of foreign exchanges was not Cassel's discovery, but its popularization was undoubtedly his accomplishment. Originally the concept was introduced by Cassel in the so-called absolute form: the international exchange ratio of two currencies will tend to settle at the ratio of the absolute height of their price levels. Because the costs of transportation of goods or obstacles to trade, such as tariffs and quotas, might operate unequally as between two countries, the absolute form was rather quickly supplanted by the relative form: the equilibrium rate of exchange would *move*, relatively to its position in a base year when equilibrium in the balances of payments could be assumed, in the same ratio as the relation of *changes* in the price levels. Purchasing power parity, even in this formulation, has to be corrected for changes in relative trade obstacles, in international demand, in relative costs, and for protracted capital movements.

Despite these limitations, and especially if Cassel's wholesale price index is supplanted by one more appropriate to international equilibrium, the device may be useful in forecasting the future level of a given exchange if it is free to move. Cassel utilized the idea, known in this context as the "inflation theory," to refute the official apology propagated by Germany that the complete depreciation of the mark in 1923 was explained by a mere scarcity of goods and by an unfavorable balance of trade. He also based upon the parity doctrine his adverse judgment against attempts to restore badly depreciated currencies to their old values.

During the twenties Cassel predicted a world shortage of gold. This was partly derived from his explanation of secular price movements in the century from 1810 to 1910 in terms of the deviation of the stock of monetary gold from a computed normal increase of 2.79 per cent per annum which would parallel the secular increase of physical output. There are grounds for skepticism concerning this analysis, as for example the effects of changing from a silver or a bimetallic to the gold standard in the chief trading nations during the century. But the devices recommended by Cassel for alleviating a gold shortage by monetary changes have meanwhile come into practical acceptance.

In the field of business cycle theory, Cassel has been less influential than Wicksell. Common to both was the doctrine that cycles consist primarily of alternations of an excess of investment over saving and the reverse. The only categoric difference lay in Cassel's contention that the "natural" or "real" rate of interest would tend to conform to the market rate, whereas Wicksell held the reverse. Curiously enough for the proponent of such a doctrine, Cassel was completely out of sympathy with the recent doctrine of Keynes and Hansen.

An adequate appreciation of the significance of Cassel leads beyond the realm of scientific literature to his extensive popular writing, his wide partici-

pation in public affairs, and his influence upon the rising generation of scholars. He began contributing in 1897 at the age of thirty-one to the Swedish newspapers and journals such as the *Svenska Dagbladet*, the *Index of Svenska Handelsbanken*, and the *Quarterly Report* of the Skandinaviska Kreditaktie bolaget. For half a century thereafter, the intelligent reading public looked forward to the position taken by Cassel on the important economic and social issues of the day. His career as a teacher extended from his appointment as professor in economic and financial science at the University of Stockholm to *emeritus* status in 1933. His career as a consultant began in 1904 with an appointment (held until 1917) as adviser to the Department of Finance. Thereafter he was a member of the bank commission in 1917, a member of the economic council, 1920-21, and an adviser to the railroad council, 1924-26.

During the First World War, Cassel was asked by the government of Germany to help solve some of the country's pressing economic problems; in 1922 he advised in the establishment of the Russian State Bank; and in 1928, he testified before our House of Representatives Currency and Banking Committee as to means for stabilizing the purchasing power of the dollar. He was the Swedish delegate to International Chamber of Commerce meetings during the twenties at London, Rome, Brussels, Stockholm, and Amsterdam; and he participated in the World Economic Conferences of Genoa (1922) and London (1933).

Cassel enjoyed as wide recognition and honor as ever has been accorded an economist during his lifetime. His books were translated into many foreign languages. He held honorary degrees from a number of universities, and occupied honorary lectureships at Oxford, London, Geneva, Columbia, and Chicago. He was an honorary member of the American Economic Association and a member (1914), gold medallist (1922), and president (1926) of the Royal Swedish Academy. Commenting upon his death, a Stockholm newspaper wrote that he was a whole academy in himself.

Cassel was essentially a liberal in economic philosophy in his belief in the efficiency and benefit of a competitive price economy. This liberalism is apparent in the books already cited and, more particularly, in *Recent Monopolistic Tendencies in Industry and Trade* (1927) and *Socialism and Progress* (1928). Cassel frequently warned against the outcome of authoritarian tendencies in economic policy: "The arbitrariness, the mistakes, and the inevitable contradictions of such a policy will, as daily experience shows, only strengthen the demand for a more rational coordination of the different measures and, therefore, for unified leadership. For this reason Planned Economy will always tend to develop into Dictatorship." Tributes written by Cassel's outstanding students, Professor Bertil Ohlin, now Swedish Minister of Commerce, and Senator Gunnar Myrdal, pointed to Cassel's faith in rationalism, in progress, and in the final victory of common sense.

HOWARD S. ELLIS

Washington, D.C.

George S. Wehrwein
1883-1945

Professor George S. Wehrwein, land economist, died at Madison, Wisconsin, on January 10, 1945. Professor Wehrwein was born on a farm in Manitowoc county, Wisconsin, on January 31, 1883. In the nearly 62 years of his life, he attained international preëminence as a scholar, teacher, and counselor in the field of land economics.

A graduate of Oshkosh State Teachers College and the University of Wisconsin College of Agriculture, Professor Wehrwein was on the staffs of the University of Texas, Washington State College, and Pennsylvania State College before returning to Madison to complete his doctorate in 1922. He was a staff member of the Institute of Land and Public Utility Economics at Madison and then at Northwestern University. In 1928, he returned to the University of Wisconsin where he held a professorship until his death. He also was a visiting professor at Colorado State College, and Chicago, Northwestern, and Cornell Universities.

Long a member of the American Economic Association, Professor Wehrwein was also a past President of the American Farm Economic Association, Vice-President of the American Society of Planning Officials, an editor of the *Journal of Land and Public Utility Economics*, and a member of the editorial councils of *Rural Sociology* and the *Journal of Farm Economics*. He also served on the Wisconsin State Planning Board, and, during its existence, he was on the Land Committee of the National Resources Planning Board. He was co-author of *Outlines of Land Economics* and of *Land Economics*, the standard textbook in its field, and author of numerous articles and papers dealing with land tenure, land utilization, and land use planning.

Professor Wehrwein was both a great intellect and a rare personality. An assiduous investigator, he was in orderly possession of a vast store of information pertaining to the relations among men arising out of their common interest in the land. But this great asset was more than equalled by his personal charm. Modest and quiet, Professor Wehrwein was also generous and amicable. It was this exceptional combination of wisdom and kindness which made him admired by his many students, beloved by his colleagues, and respected by professional associates, busy administrators, and lay people who came into contact with him and who, knowing him, sought and cherished his friendly advice and judicious counsel.

L. A. S., JR.

Madison

NOTES

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The following persons have recently become members of the AMERICAN ECONOMIC ASSOCIATION:

Allen, E. L., 3654 Park Pl. N.W., Washington, D.C.
Arrow, Lt. K. J., 749 West End Ave., New York, N.Y.
Bahn, R., 1301 15th St. N.W., Washington 5, D.C.
Baker, A. L., 1081 Leighton Ave, Los Angeles 37, Calif.
Bampton, J. W., Lees-Cochrane Co., Bridgeport, Pa.
Bold, Miss E., 263 Brooklyn Ave., Brooklyn 13, N.Y.
Bookbinder, A. I. A., c/o Standard Brands, 595 Madison Ave., New York 22, N.Y.
Boulding, K. D., Dept. of Econ., Iowa State College, Ames, Iowa.
Bowman A. C., Texas Military Institute, San Antonio, Texas.
Bradley, B. W., Route 1, Box 51, Indio, Calif.
Brady, R. A., University of California, Dept. of Econ., Berkeley, Calif.
Bray, C. P., First National Bank Bldg., Oshkosh, Wis.
Bridgman, Lt. H. A., 246 Marlboro St., Boston 16, Mass.
Brown, O. F., 1536 Welton St., Room 400, Denver 2, Colo.
Brownlee, Pvt. R. H., 10200082, Hq. Sq., 6th Air Force, A.P.O. 825, c/o Postmaster, New Orleans, La.
Buchanan, R. L., Box 660, Oakland 4, Calif.
Butler, S. J., The University, Dept. of Econ., Sydney, Australia.
Campbell, Major G. C., Pine Bluff Arsenal, Ark.
Center, C. C., Bureau of Labor Statistics, 341 9th Ave., New York, N.Y.
Chutima, Miss K., 2309 Haste St., Berkeley, Calif.
Colton, Mrs. S. B., 2965 Valentine Ave., Bronx, New York 58, N.Y.
Crane, J. B., 3543 Newland Rd., Baltimore, Md.
Cunanan, J., Office of President of the Philippines, 1617 Massachusetts Ave. N.W., Washington 6, D.C.
Dean, Miss H., 961 W. 30th St., Los Angeles, Calif.
Dean, W. H., 35 W. 110th St., Apt. 6D, New York, N.Y.
De Cow, D. F., Bethany College, Lindsborg, Kan.
de Dioszegh R. K., 322 E. 57th St., New York 22, N.Y.
Despres, E., Route 2, Valley Lane, Seminary Hill, Alexandria, Va.
Diamond, H. S., 427 85th St., Brooklyn, N.Y.
Dice, M. E., General Petroleum Corp. of Calif., 108 W. 2nd St., Los Angeles 12, Calif.
Draper, B. P., 2595 Clay St., San Francisco 15, Calif.
Earle, E. M., Institute for Advanced Study, Princeton, N.J.
Eckstein, S/Sgt. A., 39040665, Hq. 411 Regt. S-2, IPW. A.P.O. 470, c/o Postmaster, New York, N.Y.
Elchibegoff, I. M., 4206 Kaywood Dr., Mt. Rainier, Md.
Elder, I. W., 4213 N.E. 34th Pl., Portland 11, Ore.
Ellis, R. K., Iowa Wesleyan College, Mt. Pleasant, Iowa.

- Fairley, Dr. L., Research Dept., 1729 F St., N.W., Washington 6, D.C.
Faletti, Mrs. A., 317 E. Yampa, Colorado Springs, Colo.
Federmann, Miss P. H., 4406 Greenwich Pkwy., Washington 7, D.C.
Ferber, R., 5527 Kenwood Ave., Chicago 37, Ill.
Field, B. B., SK 1/C, 36th Special N.C.B., Co. D-1, 1st Sec., c/o Fleet Post Office, San Francisco, Calif.
Fisher, P. Clark University, Worcester, Mass.
Fitzsimmons, Miss C., 702½ W. Nevada, Urbana, Ill.
Fleisher, Mrs. B., 1906 23rd St. S.E., Washington, D.C.
Fleisher, B., 1906 23rd St. S.E., Washington, D.C.
de Forest, C. M., 130 W. 42nd St., New York 18, N.Y.
Friedrich, C. J., Littauer Center, Cambridge, Mass.
Gaumnitz, E. A., Sterling Hall, University of Wisconsin, Madison, Wis.
Gelles, M., Mutual Life Insurance Co., 34 Nasau St., New York 5, N.Y.
Goley, Mrs. B. T., 121 Rittenhouse St. N.W., Washington, D.C.
Graves, R. A., University of Minnesota, 204 Vincent Hall, Minneapolis 14, Minn.
Greenwood, Cpl. H. P., 42070409, P and PW Det., Hq. 9th U. S. Army, A.P.O. 339, c/o Postmaster, New York, N.Y.
Gromfine, Cpl. I. J., Sq. D, 902 AAFBU, Statistical Control, AFTAC, Orlando, Fla.
Gutchess, F. J., 1665 34th St. N.W., Washington 7, D.C.
Harrison, R. W., 614 New Donaghey Bldg., Little Rock, Ark.
Hartogenesis, A. M., 166 Melrose Pl., Ridgewood, N.J.
Herschman, O., 1125 Sterling Pl., Brooklyn 13, N.Y.
Irons, W. H., School of Bus. Admin., University of Texas, Austin, Texas.
Jeuck, Lt. J. E., U.S.S. *Fieberling* (DE640), c/o Fleet Post Office, San Francisco, Calif.
Johnson, J., North Texas State Teachers College, Graduate Div., Denton, Texas.
Johnson, M. O., Marine National Exchange Bank, Milwaukee 1, Wis.
Kagan, L. B., 20 Pine St., New York 5, N.Y.
Kastelansky, Miss G. S., 25 Broadway, Room 2157, New York 4, N.Y.
Knorr, K. E., Food Research Institute, Stanford University, Calif.
Krause, W., 17 Hastings Hall, Cambridge, Mass.
Kravitz, Miss B., 184 Vernon Ave., Brooklyn 6, N.Y.
Lee, R. M., Mars Hill College, Mars Hill, N.C.
Lewins, L., 3424 B St. S.E., Washington 19, D.C.
Lottmann, V. G., c/o Booz, Allen and Hamilton, 135 S. La Salle St., Chicago 3, Ill.
Lovenstein, Capt. M., Army Industrial College, Office of the Commandant, Washington, D.C.
Martin, J. L., 225 E. 11th St., New York 3, N.Y.
Maxwell, Miss J. H., Slingerlands, N.Y.
McDonnell, Lt. R. P. S., 133872, c/o Commander, Seventh Fleet, c/o Fleet Post Office, San Francisco, Calif.
McPeters, W. L., 714 Fillmore St., Corinth, Miss.
Miller, Lt. S. L., Jr., College of Commerce, University of Iowa, Iowa City, Iowa.
Minsky, T/5 H. P., 31303346, Hq. Co., 51st Port TC, A.P.O. 349, c/o Postmaster, New York, N.Y.
Muhlbach, W. F., 42 Main St., Westminster, Mass.
Mui, K. C., Graduate College, Princeton, N.J.
Muller, Mrs. C., 150 W. 106th St., New York 25, N.Y.
Nason, Mrs. T. S., c/o Lt. Alvin Nason, Base Weather Sta., Florence Army Air Field, Florence, N.C.
Olson, P. R., University of Iowa, Iowa City, Iowa.
Peragallo, Der. E., College of the Holy Cross, Worcester 3, Mass.
Peters, Mrs. H., 2615 42nd St. N.W., Washington 7, D.C.
Pollock, Miss D., 3418 Elaine Pl., Chicago 13, Ill.
Porter, Rev. R. L., St. Mary's College, St. Mary's, Kan.
Posniak, Lt. E. G., 44-C Crescent Rd., Greenbelt, Md.
Prince, C., 1438 Whittier St. N.W., Washington 12, D.C.
Raymond, R. L., Jr., 38 Newbury St., Boston 16, Mass.

- Rudolph, L. M., 635 57th St., Brooklyn 20, N.Y.
 Salter, L. A., Jr., University of Wisconsin, Dept. of Agric. Econ., Madison 6, Wis.
 Sauer, Miss N. E., 1733 W. Clinch Ave., Knoxville, Tenn.
 Schwartz, Mrs. D., 145 Kingsbridge Rd., Bronx, New York 63, N.Y.
 Sessler, M. J., 19 Mariners Pl., Plainfield, N.J.
 Sharron, A. O., 1430 Saratoga Ave. N.E., Washington 18, D.C.
 Shaw, W. L., 916 Madison St., Albany 6, Calif.
 Sheppard, Lt. R. C. S., 1009 B St. N.E., Washington, D.C.
 Sliotr, R. E., 2426 19th St. N.W., Washington 9, D.C.
 Smithies, A., Executive Office of The President, Bureau of the Budget, Washington 25, D.C.
 Sotto, E. L., "La Metropolitana," Dept. 336, Havana, Cuba.
 Staats, E. B., Executive Office of the President, Bur. of the Budget, Washington 25, D.C.
 Stickle, L. R., 2515 S. Adams St., Arlington, Va.
 Stockwell, R. E., WCCO, Minneapolis 2, Minn.
 Swaitopolk-Mirski, Dr. M., Columbia University, 612 Hamilton Hall, New York 27, N.Y.
 Taylor, J. S., Retraining and Reemployment Admin., Room 7024, FWA Bldg., 18th and F Sts. N.W., Washington 25, D.C.
 Tenenbaum, H., 2022 Connecticut Ave. N.W., Washington, D.C.
 Trenchard, G. O., Firestone Tire and Rubber Co., Akron 17, Ohio.
 Vargas, C. A., 313 Brown Hall, Theological Seminary, Princeton, N.J.
 Wang, E., Beloit College, Beloit, Wis.
 Watson, W. J., 4780 Sheridan Dr., Williamsville, N.Y.
 Weber, H. J., 1701 16th St. N.W., Washington 9, D.C.
 Weiler, E. T., 5 Whitestone Ct., Silver Spring, Md.
 Wesson, Lt. W. H. Jr., LCS(1) Group One Staff, c/o Fleet Post Office, San Francisco, Calif.
 Willkie, Lt. H. W., 330 N. Piedmont St., Arlington, Va.
 Wohl, R. R., 232 Vernon Ave., Brooklyn 6, N.Y.
 Woodbury, C., National Housing Agency, Washington, D.C.
 Woodworth, L. N., 8715 Reading Rd., Silver Spring, Md.
 Zapoleon, L. B., 4729 MacArthur Blvd., Washington 7, D.C.
 Zavoico, B. B., 220 E. 42nd St., New York 17, N.Y.

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 Econometric Society—Lord Keynes, Cambridge University, president; Alfred Cowles, University of Chicago, secretary.
 Institute of Mathematical Statistics—Paul S. Dwyer, University of Michigan, secretary.

The American Farm Economic Association is sponsoring a series of awards for papers dealing with parity prices and post-war policies for agriculture. The topic selected is "A Price Policy for Agriculture, Consistent with Economic Progress, That Will Promote Adequate and More Stable Income from Farming." First Award is \$5,000; Second, \$2,500;

Third, \$1,250, and there are fifteen additional awards of \$250 each. The purpose of the awards is to stimulate nation-wide interest in improved price and income policy and methods for dealing effectively with farm price problems in the reconversion and post-war periods. For additional information, inquiries should be addressed to Asher Hobson, Secretary-Treasurer, American Farm Economic Association, University of Wisconsin, Madison, Wisconsin.

In February, the Biometrics Section of the American Statistical Association began publication of its bi-monthly *Biometrics Bulletin* to foster contacts between biologists concerned with statistical information, problems and methods, to stimulate research and to elevate the standards of statistical work. Professor C. I. Bliss of Yale University is chairman of the Section and Professor Gertrude M. Cox of North Carolina State College is chairman of the *Bulletin's* Editorial Committee.

The Canadian Political Science Association, of which K. W. Taylor is president, held its seventeenth annual meeting May 23-25, at Queen's University, Kingston.

The International Ladies' Garment Workers' Union, 1710 Broadway, New York 19, has available a limited number of copies of the Proceedings of its 1944 convention to be sent to interested persons or libraries. The volume contains addresses and discussions by national figures on critical questions of the present and the near future.

The Proceedings of the Fourth Session, Institute of Economics and Finance, held at Occidental College, February 28-March 2, will be published and available to the libraries and other institutions that have copies of the proceedings of previous meetings. A limited number of copies will also be available for individuals. Requests may be sent to Professor Cecil L. Dunn of Occidental College.

The University of Wyoming at Laramie will have for the first term of summer school this year—June 20 to July 26—an Institute of International Affairs. The subject for the Institute will be Central and Eastern European Affairs. Feliks Gross, lecturer at New York University, will be the director. The teaching staff will include J. W. Baldwin, Vojta Benes, Lewis Corey, V. C. Coulter, Petras Dauzvardis, Wacław Lednicki, Phillip Lohman, Nicholas G. Mavris, Anatole G. Mazour, Ante Pavelich, Michael J. Politis, Sylwin Strakacz, G. Harrison Thomson, Basil Vlavianos.

Edward Johns Urwick, M.A., F.R.S.C., head of the department of political economy at the University of Toronto from 1926 to 1937, died at Vancouver on February 18, 1945.

Appointments and Resignations

J. Ellwood Amos has resigned from the finance department of the School of Business Administration of the University of Pittsburgh.

Alvin B. Biscoe, vice chairman of the War Labor Board for the Atlanta region, has been named dean of the College of Business Administration of the University of Georgia.

Chelcie C. Bosland has been promoted to professor of economics at Brown University.

Vera Biscoe recently returned to the staff of the Bureau of Business Research of the University of Kentucky, and will make a study of Kentucky municipal finance under the sponsorship of the University and the Kentucky Municipal League.

R. P. Brooks, after many years' service as Dean of the College of Business Administration of the University of Georgia, has been named Dean of Faculties and will take up his new duties in September.

J. Douglas Brown has been appointed Dean of the Faculty at Princeton University commencing July, 1946. He will continue as Director of the Industrial Relations Section as well as professor in the department of economics.

Leslie A. Bryan, Franklin Professor of Transportation at Syracuse University, is on leave of absence while acting as director of the recently created Bureau of Aviation for the State of New York.

Lawrence R. Chenault was visiting professor of economics at the College of William and Mary during the spring semester.

Ralph E. Conwell, professor of economics at the University of Wyoming, is traveling in Mexico, observing social and economic conditions.

Garfield V. Cox has been appointed dean of the School of Business at the University of Chicago.

Elizabeth Armour Curtiss, formerly of the department of economics at Wellesley College, has joined the department of economics and sociology at Iowa State College as associate professor of consumption economics.

Lawrence A. Cusack of the Bureau of Internal Revenue and formerly associate professor of economics at Creighton University is conducting a course in financial statement analysis in the Graduate School of Social Science, The Catholic University of America.

W. H. Delaplane, assistant professor of economics at Duke University, is on leave of absence serving as visiting professor of economics for the year 1944-45 at the University of Paraguay, at Asuncion.

Ralph L. Dewey, formerly principal transportation economist with the Department of Agriculture and the War Food Administration, has been appointed professor of economics at Iowa State College, where he is in charge of teaching and research in transportation and public utility economics.

Kenneth Duncan, professor of economics, Pomona College, will teach during the summer session of 1945 at the University of California, Los Angeles.

Howard S. Ellis, professor of economics at the University of California, is on leave of absence while serving as assistant director of research for the Board of Governors of the Federal Reserve System, Washington.

Clarence W. Fackler has been promoted from associate professor to professor of accounting in the Graduate School of Business Administration, New York University, and has also been appointed to the headquarters staff of the National Association of Cost Accountants as a research associate.

William J. Fellner, associate professor of economics at the University of California, has been on leave of absence, working at the Division of Tax Research of the Treasury Department.

Morris Friedberg, professor of economics at Simmons College, is on leave of absence while serving in the Division of Monetary Research of the Treasury Department.

Frank D. Graham of Princeton University has been named Walker Professor of International Finance.

William S. Hopkins has been advanced from associate professor to professor of economics at Stanford University.

Arthur T. Jacobs has resigned from the staff of Labor Relations Associates, Inc., Chicago, to become labor economist for the National Foremen's Institute and editor of the *Executives' Labor Letter*. He recently conducted a course in trade unionism in the United States at the School of Commerce, De Paul University.

Thomas H. Kelly has been appointed professor at Natal University College, Durban, South Africa.

Marshall D. Ketchum, associate professor, College of Commerce, University of Kentucky, will be professorial lecturer in finance at the School of Business, University of Chicago, during the summer quarter of 1945.

Richard L. Kozelka, formerly acting dean, was appointed to the post of dean of the School of Business Administration at the University of Minnesota by the Board of Regents in March.

C. E. Landon, assistant professor of economics at Duke University, is on leave of absence serving as senior economist with the steel division of the Office of Price Administration.

Richard A. Lester, associate professor of economics at Duke University, has been appointed chairman of the Southern Textile Commission of the War Labor Board.

Lin Lin was transferred in August, 1944, to Mexico as the director of the Chinese News Service.

J. A. Livingston has transferred from the War Production Board to the Office of War Mobilization and Reconversion, Washington.

Meno Lovenstein is now on the faculty of the Army Industrial College, teaching courses in procurement, termination and preparing courses on mobilization and demobilization.

C. Ward Macy of Coe College will teach in the department of economics at Northwestern University during the summer quarter of 1945.

Archibald M. McIsaac, James G. Smith and John W. Cadman, Jr., of the department of economics and social institutions of Princeton University, have been engaged since September, 1944, on a study of the post-war position of the American textile industries for the Textile Research Institute, Inc., on a grant from the Textile Foundation.

Glenn D. Morrow, formerly research assistant in the Bureau of Business Research of the University of Kentucky and now a staff member of the American Financial Mission to Iran, plans to return to the Bureau as a research associate.

Mrs. Charlotte Muller of the department of economics and sociology at Barnard College will conduct a course on the development of capitalistic institutions in 1945-46.

Thelma Stein Nason is now a representative of the United Electrical, Radio and Machine Workers of America, in Newark.

James C. Nelson has transferred from the Office of Defense Transportation to the Bureau of Foreign and Domestic Commerce, where he is chief of the transportation unit.

William A. Nielander, associate professor of marketing on leave from the University of Texas, resigned recently as head economist for the Office of Coördinator of Inter-American Affairs, and is now associated with the American Institute of Coöperation as director of business administration.

F. Taylor Ostrander has resigned as economic consultant to the Pittsburgh Plate Glass Company and become intelligence officer for the Foreign Economic Administration, attached to the London Mission.

Lucia Peterson, formerly of Park College, is now a research assistant in the Bureau of Business Research of the University of Kentucky.

Frank C. Pierson of Swarthmore College is serving as vice chairman of the Regional War Labor Board in Philadelphia.

Jewell J. Rasmussen of the department of economics of the University of Utah, has been promoted from instructor to assistant professor.

Lloyd G. Reynolds, professor of economics at Johns Hopkins University, is serving as consultant to the Bureau of the Budget on the preparation of historical records of the wartime labor activities of the federal government.

Charles A. Rovetta has been promoted to associate professor of business economics and also appointed director of the restaurant administration program in the School of Business of the University of Chicago.

Raymond J. Saulnier, assistant professor of economics at Barnard College, Columbia University, will return to his post beginning with the academic year 1945-46, after two years' leave of absence, working with the Naval School of Military Government and Administration at Columbia University.

Geoffrey S. Shepherd, professor of agricultural economics at Iowa State College, received a five months' leave of absence beginning March 1, to accept a temporary position as chief economist for the food price division of the Office of Price Administration, Washington.

Robert S. Smith, assistant professor of economics at Duke University, will serve as visiting professor of economics for the summer of 1945 at the University of Costa Rica at San Jose.

William H. Spencer has resigned as dean of the School of Business, University of Chicago, to accept the Hobart W. Williams distinguished service professorship and will teach in the School of Business, the Law School, and the Division of Social Sciences.

Henry W. Spiegel, a member of the economics faculty of the Graduate School of Social Science, The Catholic University of America, has been awarded a fellowship by the John Simon Guggenheim Memorial Foundation.

Wolfgang F. Stolper is on leave of absence from Swarthmore College to participate in the Strategic Bombing Survey in Germany.

J. Wilner Sundelson, on leave of absence from Rutgers University, has been appointed chief of the Northern European Division of the Foreign Economic Administration, after serving as a member of the Mission for Economic Affairs of the American Embassy in London and representative of the Foreign Economic Administration in Belgium and Luxembourg.

Ralph J. Watkins is now with Dun and Bradstreet, Inc., in New York, as director of business studies, marketing and research service, after a year's service with Allied Force Headquarters in Algiers, where he headed the Lend-Lease Mission to French North Africa.

Frederick V. Waugh, assistant deputy director of the Office of Marketing Services of the War Food Administration, spent a month this spring at Iowa State College as visiting research professor in the department of economics and sociology, studying food marketing.

Clair Wilcox of Swarthmore College is acting as consultant in the office of William L. Clayton, Assistant Secretary of State.

Edward F. Willett, associate professor of economics is taking a year's leave of absence from Smith College to act as research assistant to the Secretary of the Navy.

Freda Witherow is a research assistant in the Bureau of Business Research of the University of Kentucky.

Dean A. Worcester, assistant professor of economics at Louisiana State University, is on leave of absence for the third quarter of the academic year, while serving in the Louisiana Department of Public Works.

Viola Wyckoff, formerly of Vassar College, has joined the department of Economics at Wellesley College as assistant professor.

DAVID KINLEY

Fifteenth President of the American Economic Association, 1913

David Kinley was born August 2, 1861, in Dundee, Scotland. He died at the age of 83 at Urbana, Illinois, on December 3, 1944. Dr. Kinley came to the United States with his father in 1872. Following his graduation from Phillips Academy at Andover, he attended Yale, receiving the A.B. degree in 1884. In 1890, after having served as principal of a high school at North Andover, Massachusetts, he went to John Hopkins, where he studied with Richard T. Ely and Woodrow Wilson. He accompanied Professor Ely to the University of Wisconsin in 1892 and in 1893 received his Ph.D. degree from that institution.

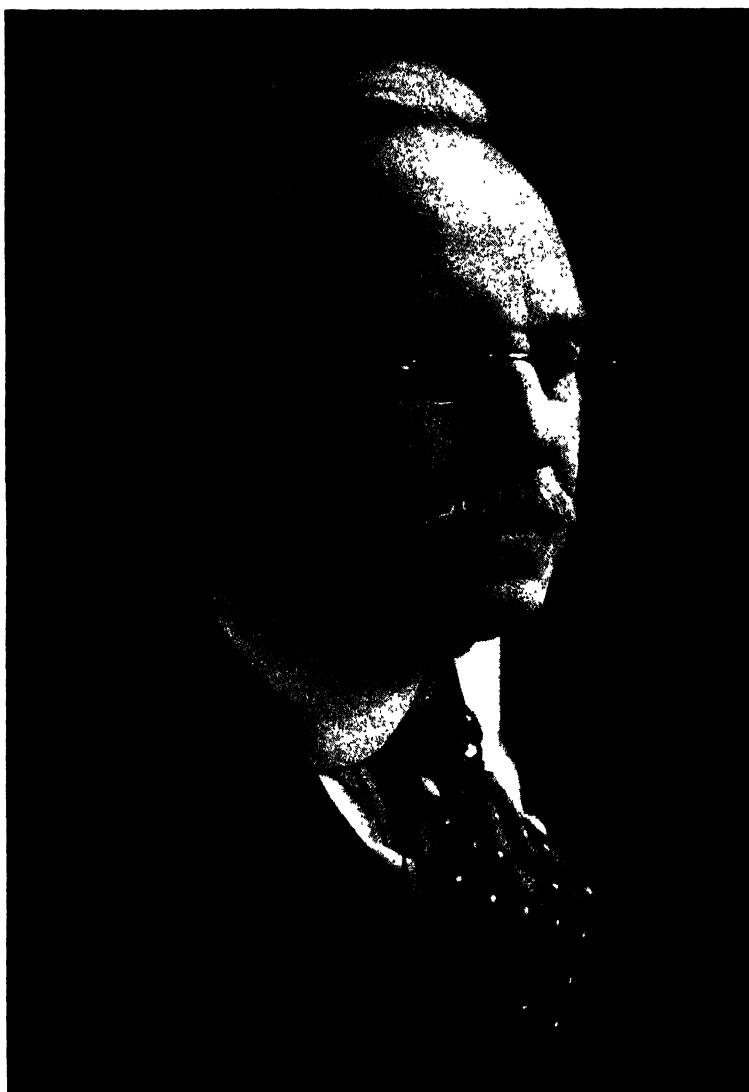
Honorary LL.D. degrees were conferred upon Dr. Kinley by Illinois College (1908), University of Wisconsin (1918), University of Nebraska (1921), and Yale (1924).

In 1893 Dr. Kinley accepted a post at the University of Illinois, where he served as assistant professor of economics, professor from 1894, department head, 1894-1915, dean of the college of Literature and Arts, 1894-1906, founder and director of the training for business courses, 1902-15, dean of the Graduate School, 1906-19, vice-president, 1914-19, acting president, 1919, president, 1920-30, and president emeritus until his death.

During his active career at the University of Illinois Dr. Kinley maintained a lively interest in local and state affairs, where he served on many boards and commissions, and also in foreign affairs. He traveled widely and served his country as delegate and representative to several conferences and congresses.

Dr. Kinley's chief interests in the field of economics were money and banking and government regulation of business. The title of his presidential address in 1913 was, "Renewed Extension of Government Control of Economic Life." His chief publications are: *The Independent Treasury of the United States* (1893), *Monograph on Trusts* (1899), *Money* (1904), monographs prepared for the National Monetary Commission (1910), *Government Control of Economic Life and Other Addresses* (1936). He was editor of the *Preliminary Studies of the War* of the Carnegie Endowment for International Peace, Division of Economics and History (1913-22). In 1930 he was awarded the Newman medal.

Number 15 of a series of photographs of past presidents of the Association.



Dr. Zimley

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THE USE OF KNOWLEDGE IN SOCIETY

By F. A. HAYEK*.

I

What is the problem we wish to solve when we try to construct a rational economic order?

On certain familiar assumptions the answer is simple enough. *If* we possess all the relevant information, *if* we can start out from a given system of preferences and *if* we command complete knowledge of available means, the problem which remains is purely one of logic. That is, the answer to the question of what is the best use of the available means is implicit in our assumptions. The conditions which the solution of this optimum problem must satisfy have been fully worked out and can be stated best in mathematical form: put at their briefest, they are that the marginal rates of substitution between any two commodities or factors must be the same in all their different uses.

This, however, is emphatically *not* the economic problem which society faces. And the economic calculus which we have developed to solve this logical problem, though an important step toward the solution of the economic problem of society, does not yet provide an answer to it. The reason for this is that the "data" from which the economic calculus starts are never for the whole society "given" to a single mind which could work out the implications, and can never be so given.

The peculiar character of the problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess. The economic problem of society is thus not merely a problem

*The author is Tooke professor of political economy and statistics at the University of London (London School of Economics and Political Science).

of how to allocate "given" resources—if "given" is taken to mean given to a single mind which deliberately solves the problem set by these "data." It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge not given to anyone in its totality.

This character of the fundamental problem has, I am afraid, been rather obscured than illuminated by many of the recent refinements of economic theory, particularly by many of the uses made of mathematics. Though the problem with which I want primarily to deal in this paper is the problem of a rational economic organization, I shall in its course be led again and again to point to its close connections with certain methodological questions. Many of the points I wish to make are indeed conclusions toward which diverse paths of reasoning have unexpectedly converged. But as I now see these problems, this is no accident. It seems to me that many of the current disputes with regard to both economic theory and economic policy have their common origin in a misconception about the nature of the economic problem of society. This misconception in turn is due to an erroneous transfer to social phenomena of the habits of thought we have developed in dealing with the phenomena of nature.

II

In ordinary language we describe by the word "planning" the complex of interrelated decisions about the allocation of our available resources. All economic activity is in this sense planning; and in any society in which many people collaborate, this planning, whoever does it, will in some measure have to be based on knowledge which, in the first instance, is not given to the planner but to somebody else, which somehow will have to be conveyed to the planner. The various ways in which the knowledge on which people base their plans is communicated to them is the crucial problem for any theory explaining the economic process. And the problem of what is the best way of utilizing knowledge initially dispersed among all the people is at least one of the main problems of economic policy—or of designing an efficient economic system.

The answer to this question is closely connected with that other question which arises here, that of *who* is to do the planning. It is about this question that all the dispute about "economic planning" centers. This is not a dispute about whether planning is to be done or not. It is a dispute as to whether planning is to be done centrally, by one authority for the whole economic system, or is to be divided

among many individuals. Planning in the specific sense in which the term is used in contemporary controversy necessarily means central planning—direction of the whole economic system according to one unified plan. Competition, on the other hand, means decentralized planning by many separate persons. The half-way house between the two, about which many people talk but which few like when they see it, is the delegation of planning to organized industries, or, in other words, monopoly.

Which of these systems is likely to be more efficient depends mainly on the question under which of them we can expect that fuller use will be made of the existing knowledge. And this, in turn, depends on whether we are more likely to succeed in putting at the disposal of a single central authority all the knowledge which ought to be used but which is initially dispersed among many different individuals, or in conveying to the individuals such additional knowledge as they need in order to enable them to fit their plans in with those of others.

III

It will at once be evident that on this point the position will be different with respect to different kinds of knowledge; and the answer to our question will therefore largely turn on the relative importance of the different kinds of knowledge; those more likely to be at the disposal of particular individuals and those which we should with greater confidence expect to find in the possession of an authority made up of suitably chosen experts. If it is today so widely assumed that the latter will be in a better position, this is because one kind of knowledge, namely, scientific knowledge, occupies now so prominent a place in public imagination that we tend to forget that it is not the only kind that is relevant. It may be admitted that, so far as scientific knowledge is concerned, a body of suitably chosen experts may be in the best position to command all the best knowledge available—though this is of course merely shifting the difficulty to the problem of selecting the experts. What I wish to point out is that, even assuming that this problem can be readily solved, it is only a small part of the wider problem.

Today it is almost heresy to suggest that scientific knowledge is not the sum of all knowledge. But a little reflection will show that there is beyond question a body of very important but unorganized knowledge which cannot possibly be called scientific in the sense of knowledge of general rules: the knowledge of the particular circumstances of time and place. It is with respect to this that practically every individual has some advantage over all others in that he possesses unique information of which beneficial use might be made, but of

which use can be made only if the decisions depending on it are left to him or are made with his active coöperation. We need to remember only how much we have to learn in any occupation after we have completed our theoretical training, how big a part of our working life we spend learning particular jobs, and how valuable an asset in all walks of life is knowledge of people, of local conditions, and special circumstances. To know of and put to use a machine not fully employed, or somebody's skill which could be better utilized, or to be aware of a surplus stock which can be drawn upon during an interruption of supplies, is socially quite as useful as the knowledge of better alternative techniques. And the shipper who earns his living from using otherwise empty or half-filled journeys of tramp-steamers, or the estate agent whose whole knowledge is almost exclusively one of temporary opportunities, or the *arbitrageur* who gains from local differences of commodity prices, are all performing eminently useful functions based on special knowledge of circumstances of the fleeting moment not known to others.

It is a curious fact that this sort of knowledge should today be generally regarded with a kind of contempt, and that anyone who by such knowledge gains an advantage over somebody better equipped with theoretical or technical knowledge is thought to have acted almost disreputably. To gain an advantage from better knowledge of facilities of communication or transport is sometimes regarded as almost dishonest, although it is quite as important that society make use of the best opportunities in this respect as in using the latest scientific discoveries. This prejudice has in a considerable measure affected the attitude toward commerce in general compared with that toward production. Even economists who regard themselves as definitely above the crude materialist fallacies of the past constantly commit the same mistake where activities directed toward the acquisition of such practical knowledge are concerned—apparently because in their scheme of things all such knowledge is supposed to be “given.” The common idea now seems to be that all such knowledge should as a matter of course be readily at the command of everybody, and the reproach of irrationality leveled against the existing economic order is frequently based on the fact that it is not so available. This view disregards the fact that the method by which such knowledge can be made as widely available as possible is precisely the problem to which we have to find an answer.

IV

If it is fashionable today to minimize the importance of the knowledge of the particular circumstances of time and place, this is closely connected with the smaller importance which is now attached to change

as such. Indeed, there are few points on which the assumptions made (usually only implicitly) by the "planners" differ from those of their opponents as much as with regard to the significance and frequency of changes which will make substantial alterations of production plans necessary. Of course, if detailed economic plans could be laid down for fairly long periods in advance and then closely adhered to, so that no further economic decisions of importance would be required, the task of drawing up a comprehensive plan governing all economic activity would appear much less formidable.

It is, perhaps, worth stressing that economic problems arise always and only in consequence of change. So long as things continue as before, or at least as they were expected to, there arise no new problems requiring a decision, no need to form a new plan. The belief that changes, or at least day-to-day adjustments, have become less important in modern times implies the contention that economic problems also have become less important. This belief in the decreasing importance of change is, for that reason, usually held by the same people who argue that the importance of economic considerations has been driven into the background by the growing importance of technological knowledge.

Is it true that, with the elaborate apparatus of modern production, economic decisions are required only at long intervals, as when a new factory is to be erected or a new process to be introduced? Is it true that, once a plant has been built, the rest is all more or less mechanical, determined by the character of the plant, and leaving little to be changed in adapting to the ever-changing circumstances of the moment?

The fairly widespread belief in the affirmative is not, so far as I can ascertain, borne out by the practical experience of the business man. In a competitive industry at any rate—and such an industry alone can serve as a test—the task of keeping cost from rising requires constant struggle, absorbing a great part of the energy of the manager. How easy it is for an inefficient manager to dissipate the differentials on which profitability rests, and that it is possible, with the same technical facilities, to produce with a great variety of costs, are among the commonplaces of business experience which do not seem to be equally familiar in the study of the economist. The very strength of the desire, constantly voiced by producers and engineers, to be able to proceed untrammelled by considerations of money costs, is eloquent testimony to the extent to which these factors enter into their daily work.

One reason why economists are increasingly apt to forget about the constant small changes which make up the whole economic picture is precisely their growing preoccupation with statistical aggregates, which

show a very much greater stability than the movements of the detail. The comparative stability of the aggregates cannot, however, be accounted for—as the statisticians seem occasionally to be inclined to do—by the “law of large numbers” or the mutual compensation of random changes. The number of elements with which we have to deal is not large enough for such accidental forces to produce stability. The continuous flow of goods and services is maintained by constant deliberate adjustments, by new dispositions made every day in the light of circumstances not known the day before, by *B* stepping in at once when *A* fails to deliver. Even the large and highly mechanized plant keeps going largely because of an environment upon which it can draw for all sorts of unexpected needs; tiles for its roof, stationery for its forms, and all the thousand and one kinds of equipment in which it cannot be self-contained and which the plans for the operation of the plant require to be readily available in the market.

This is, perhaps, also the point where I should briefly mention the fact that the sort of knowledge with which I have been concerned is knowledge of the kind which by its nature cannot enter into statistics and therefore cannot be conveyed to any central authority in statistical form. The statistics which such a central authority would have to use would have to be arrived at precisely by abstracting from minor differences between the things, by lumping together, as resources of one kind, items which differ as regards location, quality, and other particulars, in a way which may be very significant for the specific decision. It follows from this that central planning based on statistical information by its nature cannot take direct account of these circumstances of time and place, and that the central planner will have to find some way or other in which the decisions depending on them can be left to the “man on the spot.”

V

If we can agree that the economic problem of society is mainly one of rapid adaptation to changes in the particular circumstances of time and place, it would seem to follow that the ultimate decisions must be left to the people who are familiar with these circumstances, who know directly of the relevant changes and of the resources immediately available to meet them. We cannot expect that this problem will be solved by first communicating all this knowledge to a central board which, after integrating *all* knowledge, issues its orders. We must solve it by some form of decentralization. But this answers only part of our problem. We need decentralization because only thus can we ensure that the knowledge of the particular circumstances of time and place will be promptly used. But the “man on the spot” cannot hide

solely on the basis of his limited but intimate knowledge of the facts of his immediate surroundings. There still remains the problem of communicating to him such further information as he needs to fit his decisions into the whole pattern of changes of the larger economic system.

How much knowledge does he need to do so successfully? Which of the events which happen beyond the horizon of his immediate knowledge are of relevance to his immediate decision, and how much of them need he know?

There is hardly anything that happens anywhere in the world that *might* not have an effect on the decision he ought to make. But he need not know of these events as such, nor of *all* their effects. It does not matter for him *why* at the particular moment more screws of one size than of another are wanted, *why* paper bags are more readily available than canvas bags, or *why* skilled labor, or particular machine tools, have for the moment become more difficult to acquire. All that is significant for him is *how much more or less* difficult to procure they have become compared with other things with which he is also concerned, or how much more or less urgently wanted are the alternative things he produces or uses. It is always a question of the relative importance of the particular things with which he is concerned, and the causes which alter their relative importance are of no interest to him beyond the effect on those concrete things of his own environment.

It is in this connection that what I have called the economic calculus proper helps us, at least by analogy, to see how this problem can be solved, and in fact is being solved, by the price system. Even the single controlling mind, in possession of all the data for some small, self-contained economic system, would not—every time some small adjustment in the allocation of resources had to be made—go explicitly through all the relations between ends and means which might possibly be affected. It is indeed the great contribution of the pure logic of choice that it has demonstrated conclusively that even such a single mind could solve this kind of problem only by constructing and constantly using rates of equivalence (or “values,” or “marginal rates of substitution”), *i.e.*, by attaching to each kind of scarce resource a numerical index which cannot be derived from any property possessed by that particular thing, but which reflects, or in which is condensed, its significance in view of the whole means-end structure. In any small change he will have to consider only these quantitative indices (or “values”) in which all the relevant information is concentrated; and by adjusting the quantities one by one, he can appropriately rearrange his dispositions without having to solve the whole puzzle *ab initio*, or without needing at any stage to survey it at once in all its ramifications.

Fundamentally, in a system where the knowledge of the relevant facts is dispersed among many people, prices can act to coördinate the separate actions of different people in the same way as subjective values help the individual to coördinate the parts of his plan. It is worth contemplating for a moment a very simple and commonplace instance of the action of the price system to see what precisely it accomplishes. Assume that somewhere in the world a new opportunity for the use of some raw material, say tin, has arisen, or that one of the sources of supply of tin has been eliminated. It does not matter for our purpose—and it is very significant that it does not matter—which of these two causes has made tin more scarce. All that the users of tin need to know is that some of the tin they used to consume is now more profitably employed elsewhere, and that in consequence they must economize tin. There is no need for the great majority of them even to know where the more urgent need has arisen, or in favor of what other needs they ought to husband the supply. If only some of them know directly of the new demand, and switch resources over to it, and if the people who are aware of the new gap thus created in turn fill it from still other sources, the effect will rapidly spread throughout the whole economic system and influence not only all the uses of tin, but also those of its substitutes and the substitutes of these substitutes, the supply of all the things made of tin, and their substitutes, and so on; and all this without the great majority of those instrumental in bringing about these substitutions knowing anything at all about the original cause of these changes. The whole acts as one market, not because any of its members survey the whole field, but because their limited individual fields of vision sufficiently overlap so that through many intermediaries the relevant information is communicated to all. The mere fact that there is one price for any commodity—or rather that local prices are connected in a manner determined by the cost of transport, etc.—brings about the solution which (it is just conceptually possible) might have been arrived at by one single mind possessing all the information which is in fact dispersed among all the people involved in the process.

VI

We must look at the price system as such a mechanism for communicating information if we want to understand its real function—a function which, of course, it fulfills less perfectly as prices grow more rigid. (Even when quoted prices have become quite rigid, however, the forces which would operate through changes in price still operate to a considerable extent through changes in the other terms of the contract.) The most significant fact about this system is the economy of knowledge

with which it operates, or how little the individual participants need to know in order to be able to take the right action. In abbreviated form, by a kind of symbol, only the most essential information is passed on, and passed on only to those concerned. It is more than a metaphor to describe the price system as a kind of machinery for registering change, or a system of telecommunications which enables individual producers to watch merely the movement of a few pointers, as an engineer might watch the hands of a few dials, in order to adjust their activities to changes of which they may never know more than is reflected in the price movement.

Of course, these adjustments are probably never "perfect" in the sense in which the economist conceives of them in his equilibrium analysis. But I fear that our theoretical habits of approaching the problem with the assumption of more or less perfect knowledge on the part of almost everyone has made us somewhat blind to the true function of the price mechanism and led us to apply rather misleading standards in judging its efficiency. The marvel is that in a case like that of a scarcity of one raw material, without an order being issued, without more than perhaps a handful of people knowing the cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly; *i.e.*, they move in the right direction. This is enough of a marvel even if, in a constantly changing world, not all will hit it off so perfectly that their profit rates will always be maintained at the same constant or "normal" level.

I have deliberately used the word "marvel" to shock the reader out of the complacency with which we often take the working of this mechanism for granted. I am convinced that if it were the result of deliberate human design, and if the people guided by the price changes understood that their decisions have significance far beyond their immediate aim, this mechanism would have been acclaimed as one of the greatest triumphs of the human mind. Its misfortune is the double one that it is not the product of human design and that the people guided by it usually do not know why they are made to do what they do. But those who clamor for "conscious direction"—and who cannot believe that anything which has evolved without design (and even without our understanding it) should solve problems which we should not be able to solve consciously—should remember this: The problem is precisely how to extend the span of our utilization of resources beyond the span of the control of any one mind; and, therefore, how to dispense with the need of conscious control and how to provide inducements which will make the individuals do the desirable things without anyone having to tell them what to do.

The problem which we meet here is by no means peculiar to economics but arises in connection with nearly all truly social phenomena, with language and most of our cultural inheritance, and constitutes really the central theoretical problem of all social science. As Alfred Whitehead has said in another connection, "It is a profoundly erroneous truism, repeated by all copy-books and by eminent people when they are making speeches, that we should cultivate the habit of thinking what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them." This is of profound significance in the social field. We make constant use of formulas, symbols and rules whose meaning we do not understand and through the use of which we avail ourselves of the assistance of knowledge which individually we do not possess. We have developed these practices and institutions by building upon habits and institutions which have proved successful in their own sphere and which have in turn become the foundation of the civilization we have built up.

The price system is just one of those formations which man has learned to use (though he is still very far from having learned to make the best use of it) after he had stumbled upon it without understanding it. Through it not only a division of labor but also a coördinated utilization of resources based on an equally divided knowledge has become possible. The people who like to deride any suggestion that this may be so usually distort the argument by insinuating that it asserts that by some miracle just that sort of system has spontaneously grown up which is best suited to modern civilization. It is the other way round: man has been able to develop that division of labor on which our civilization is based because he happened to stumble upon a method which made it possible. Had he not done so he might still have developed some other, altogether different, type of civilization, something like the "state" of the termite ants, or some other altogether unimaginable type. All that we can say is that nobody has yet succeeded in designing an alternative system in which certain features of the existing one can be preserved which are dear even to those who most violently assail it—such as particularly the extent to which the individual can choose his pursuits and consequently freely use his own knowledge and skill.

VII

- It is in many ways fortunate that the dispute about the indispensability of the price system for any rational calculation in a complex society is now no longer conducted entirely between camps holding different political views. The thesis that without the price system we

could not preserve a society based on such extensive division of labor as ours was greeted with a howl of derision when it was first advanced by von Mises twenty-five years ago. Today the difficulties which some still find in accepting it are no longer mainly political, and this makes for an atmosphere much more conducive to reasonable discussion. When we find Leon Trotsky arguing that "economic accounting is unthinkable without market relations"; when Professor Oscar Lange promises Professor von Mises a statue in the marble halls of the future Central Planning Board; and when Professor Abba P. Lerner rediscovers Adam Smith and emphasizes that the essential utility of the price system consists in inducing the individual, while seeking his own interest, to do what is in the general interest, the differences can indeed no longer be ascribed to political prejudice. The remaining dissent seems clearly to be due to purely intellectual, and more particularly methodological, differences.

A recent statement by Professor Joseph Schumpeter in his *Capitalism, Socialism and Democracy* provides a clear illustration of one of the methodological differences which I have in mind. Its author is pre-eminent among those economists who approach economic phenomena in the light of a certain branch of positivism. To him these phenomena accordingly appear as objectively given quantities of commodities impinging directly upon each other, almost, it would seem, without any intervention of human minds. Only against this background can I account for the following (to me startling) pronouncement. Professor Schumpeter argues that the possibility of a rational calculation in the absence of markets for the factors of production follows for the theorist "from the elementary proposition that consumers in evaluating ('demanding') consumers' goods *ipso facto* also evaluate the means of production which enter into the production of these goods."¹

Taken literally, this statement is simply untrue. The consumers do nothing of the kind. What Professor Schumpeter's "*ipso facto*" presumably means is that the valuation of the factors of production is

¹ J. Schumpeter, *Capitalism, Socialism, and Democracy* (New York, Harper, 1942), p. 175. Professor Schumpeter is, I believe, also the original author of the myth that Pareto and Barone have "solved" the problem of socialist calculation. What they, and many others, did was merely to state the conditions which a rational allocation of resources would have to satisfy, and to point out that these were essentially the same as the conditions of equilibrium of a competitive market. This is something altogether different from showing how the allocation of resources satisfying these conditions can be found in practice. Pareto himself (from whom Barone has taken practically everything he has to say), far from claiming to have solved the practical problem, in fact explicitly denies that it can be solved without the help of the market. See his *Manuel d'économie pure* (2nd ed., 1927), pp. 233-34. The relevant passage is quoted in an English translation at the beginning of my article on "Socialist Calculation: The Competitive 'Solution,'" in *Economica*, New Series, Vol. VIII, No. 26 (May, 1940), p. 125.

implied in, or follows necessarily from, the valuation of consumers' goods. But this, too, is not correct. Implication is a logical relationship which can be meaningfully asserted only of propositions simultaneously present to one and the same mind. It is evident, however, that the values of the factors of production do not depend solely on the valuation of the consumers' goods but also on the conditions of supply of the various factors of production. Only to a mind to which all these facts were simultaneously known would the answer necessarily follow from the facts given to it. The practical problem, however, arises precisely because these facts are never so given to a single mind, and because, in consequence, it is necessary that in the solution of the problem knowledge should be used that is dispersed among many people.

The problem is thus in no way solved if we can show that all the facts, *if* they were known to a single mind (as we hypothetically assume them to be given to the observing economist), would uniquely determine the solution; instead we must show how a solution is produced by the interactions of people each of whom possesses only partial knowledge. To assume all the knowledge to be given to a single mind in the same manner in which we assume it to be given to us as the explaining economists is to assume the problem away and to disregard everything that is important and significant in the real world.

That an economist of Professor Schumpeter's standing should thus have fallen into a trap which the ambiguity of the term "datum" sets to the unwary can hardly be explained as a simple error. It suggests rather than there is something fundamentally wrong with an approach which habitually disregards an essential part of the phenomena with which we have to deal: the unavoidable imperfection of man's knowledge and the consequent need for a process by which knowledge is constantly communicated and acquired. Any approach, such as that of much of mathematical economics with its simultaneous equations, which in effect starts from the assumption that people's *knowledge* corresponds with the objective *facts* of the situation, systematically leaves out what is our main task to explain. I am far from denying that in our system equilibrium analysis has a useful function to perform. But when it comes to the point where it misleads some of our leading thinkers into believing that the situation which it describes has direct relevance to the solution of practical problems, it is time that we remember that it does not deal with the social process at all and that it is no more than a useful preliminary to the study of the main problem.

"MODEL-BUILDING" AND FISCAL POLICY

By ALBERT GAILORD HART*

A number of recent writings on fiscal policy¹ draw important policy inferences directly from "models" showing hypothetical values for the main components of the national product. These "models" on examination turn out to be equilibrium positions of systems of static relationships, of much the same sort teachers of economics have been accustomed to use in the classroom—with the important difference that in classroom discussions concrete magnitudes need not come in question, whereas these fiscal-policy model-systems are aimed to give a realistic quantitative picture.

These model-systems are set up on the hypothesis that the major components of the national product are determined by the scale and character of the government's fiscal operations—in a setting, of course, of relationships among the components expressing other economic forces.² The system may be thought of as involving four classes of magnitudes:

- (1) "Active variables"—government expenditures; revenues (or

*The author is an economist in the Research Division, Committee for Economic Development.

In addition to the general debt to the literature indicated in my footnotes, I wish to acknowledge obligations arising from conversations and correspondence with K. E. Boulding, M. G. de Chazeau, Nancy Dunlap, W. J. Fellner, M. V. Jones, L. Klein, T. Koopmans, J. Marschak, R. A. Musgrave (whose article in the *American Economic Review* prompted this article), P. A. Samuelson, T. L. Smith, and T. O. Yntema—none of whom, however, shares responsibility for any errors the article may embody.

¹See in particular National Planning Association, *National Budgets for Full Employment* (Washington, March, 1945); "Forecasting Postwar Demand" (papers by Morris Livingston, Arthur Smithies and Jacob Mosak, in *Econometrica*, January, 1945); the appendix (C) by Nicholas Kaldor in Sir William Beveridge, *Full Employment in a Free Society* (New York, Norton, 1945, pp. 344-401); and R. A. Musgrave, "Alternative Budget Policies for Full Employment," *Am. Econ. Rev.*, Vol. XXXV, No. 3 (June, 1945), pp. 387-99.

The present discussion is not aimed to cover the "projections" of the national product accounts through the transition period which are being worked out in various quarters. These have of course a related economic logic, differing chiefly in being tied to immediately antecedent history at one end, and in dealing with the shortest of short-run effects.

²This way of viewing the problem emphatically does not commit the model-builder to the assumption that government fiscal policy is the only motive power in the economy. It merely brings a particular set of variables into the foreground for closer study.

rates and exemptions) of various taxes; and other magnitudes which may be thought of as directly controllable by government.

(2) "Passive variables"—the components of national product (consumption, investment); of private income (wages, profits, etc.); of disposal of income (consumption, individual savings, etc.); in principle also prices.

(3) Cumulative variables, reflecting the resultant of action of the above variables over time—chiefly the stock of money and the stock of capital goods.

(4) "Parameters"—the quantitative characteristics of the relations among the variables, determining (for example) the shape of the marginal-propensity-to-consume function, the relations of investment to taxation and to other product components, etc.

The model-builders seem to operate with a more or less explicit set of algebraic equations (or of equations and diagrams) relating these magnitudes; but their publications do not lay much stress on the equilibrium concepts involved, and in general are of limited usefulness to the reader who wishes to try the effect of putting variant assumptions through the analytical machine.

It is not my purpose to discredit this approach. As will appear shortly, I feel that the recent model-systems are in some respects seriously misleading; and that, with all improvements, such systems cannot bring us as near the threshold of policy recommendations as their sponsors seem to think. But the drawbacks of operating with such model-systems have to be weighed against the drawbacks of trying to get on without them. There has to be some sort of explicit forecast of the intensity of the economic forces with which fiscal policy has to deal, and of the responsiveness of the economic system to fiscal measures. On the whole, it seems safer to begin by setting up an equilibrium system such as these model-systems embody, continuing by considering factors it cannot adequately handle, rather than to plunge directly into the full complexity of economic forces.

The thesis of this article is that the discussion has now reached a stage for a more careful survey of the limitations of the "models" approach, and of ways to improve it and to use its results more fruitfully. It will be argued:

(1) That the recent model-systems tend to neglect factors of great importance for policy, and to make inefficient use of available evidence—primarily as the result of failure to be explicit about the relations of static to dynamic systems;

(2) That the drawbacks of these systems can be overcome in good part by more explicit recognition of their logical character, and fuller use of devices for mapping out the field of possibilities;

(3) That development of model-systems must not lead us to overrate the certainty of our forecasting, to overrate the possibilities of forestalling economic difficulties, or to underrate the necessity of adapting policy rapidly to circumstances as they develop.

I. Defects of Recent Model-Systems

The recent systems of models, though originating with a number of different workers, all represent rather similar points of view—substantially, the point of view of Sir William Beveridge's *Full Employment in a Free Society*, which in turn represents an application of Keynesian insights. I feel, therefore, that no major violence is done by treating them as products of a school, and putting criticism in terms of the tendencies of that school; though the examples brought forward under this implicit assumption of joint liability may be mildly unfair to some of the group. My main complaints are:

(1) Confusion of impact effects of economic changes with long-run effects;

(2) Inadequate recognition of cumulative factors;

(3) Underemphasis on elements in the structure of the economy which tend to generate fluctuations of activity and prices;

(4) Careless use of assumptions of ignorance;

(5) Formulation in terms which make it needlessly hard to try variant assumptions and to confront assumptions with evidence;

(6) Underemphasis on intangibles.

In the main, these are consequences of failure to be explicit about the limitations and peculiarities of a static approach.

Impact versus Long-Run Effects

The equations, tables and graphs which embody the model-systems here under discussion are formulated in terms of the *levels* at which the variables (government expenditure, revenues, consumption, investment, etc.) stand, without explicit reference either to *rates of change* or to *immediately previous levels*.³ Consequently they must be taken as formally static, representing equilibrium situations (either at full employment or with under-employment) which would be found if the "active variables" were held constant⁴ for several years on end. This

³ Such "dynamic" elements are of course brought in to some extent in the discussion surrounding these model-systems.

⁴ All variables may be supposed "deflated" to remove the effect of price-level changes; changing productivity may be thought of as reflected in some sort of smooth-acting growth factor; and population changes may be taken care of either in the growth factor or by reduction of variables to a per capita basis. "Constancy" of the variables can thus be construed in terms of a growing rather than a stationary economy if desired; what it precludes is chiefly oscillation.

does not commit the model-builders to dealing only with the ultimate effects of keeping the "active variables" constant forever and a day; but it does seem to make their model-systems incapable of handling the impact effects of sudden changes. Where different sets of values for the levels of the "active variables" are dealt with in the same model-system, therefore, such a system can describe the effects of *holding one set constant rather than another*, but not the effects of *having just shifted from one set to another*.

This logical limitation is not explicitly faced by the model-builders in question. In consequence, we tend to find a mixture of assumptions appropriate for static analysis with assumptions appropriate for dynamic analysis of impact effects. For example, Dr. Mosak⁵ uses a formula for corporate profits before taxes which shows them as varying by 23.6 per cent of any variation in gross private national product,⁶ derived by a regression of undeflated figures for 1929-1940. The base period of course reflects not experience with under-employment equilibrium but experience with sharp fluctuations—with a period in which low-income years were years previous to which activity had been much higher, and high-income years were years previous to which activity had been much lower. Had the "active variables" been held constant until the "passive variables" leveled out in an under-employment equilibrium, equilibrium ratios of profits to income would surely have varied much less than the regression suggests. Similar considerations apply to Dr. Mosak's corporate savings series: the negative figures he shows for low values of gross national product would not be compatible with any equilibrium, and the gradient is uncomfortably steep.

The effect of confusing impact and long-run effects on corporate savings estimates is seen in extreme form in Nicholas Kaldor's comparison⁷ of actual 1938 with a hypothetical 1938 which would have existed had a full-employment policy then been in effect. He puts actual 1938 output at £4,675 million, with net savings of £440 million (9.4 per cent); had there been full employment he estimates that the product would have been higher by £500 million and net savings by £120 million (24 per cent of the difference in output), of which no less than £75 million is attributed to additional undistributed profits (net of tax). As Kaldor himself points out, the "difference between the average and marginal profits (and in particular the high proportion of marginal profit going to undistributed profits) are chiefly responsible

⁵ *Econometrica*, loc. cit.

⁶ I.e., gross national product minus product arising in government, and minus indirect taxes.

⁷ For Great Britain, in 1938 prices. The figures given here are from Sir William Beveridge, *op. cit.*, pp. 350, 353, 355, 359.

. . . for the increase in savings, following on an increase in incomes, being so much larger than the proportion of savings in total income."⁸ The total difference in profits, distributed and undistributed, is put at £255 million, before taxes, or 51 per cent of the difference in product. No specific adjustment period is indicated; but to attribute half the product difference to profits smacks of a sudden change rather than a difference in equilibrium levels. On the investment side, however, Kaldor explicitly limits himself to long-run effects. Instead of the £360 million actually invested in 1938, he writes for his hypothetical full-employment 1938 £400 million, "not meant as an estimate of what private investment would have been in 1938 if output had suddenly been raised to the full employment level, but rather as an indication—not unreasonable in view of the general prewar experience—of what the normal annual private investment outlay could have been expected to be under a continuous full employment policy."⁹ Kaldor's model system thus confronts an impact effect (estimated at £120 million) on savings with a long-run effect (estimated at £40 million) on investment. This mixture of assumptions manifestly is the primary reason for the wide gap in the forecast net balance of private savings and investment at full employment, and consequently for the large scale of fiscal adjustments shown¹⁰ as necessary to execute a full-employment policy.

The illustration just given relates primarily to undistributed corporate profits, or "corporate saving." Failure to distinguish sharply between impact and long-run effects also has much to do with the high estimates of the marginal propensity to save among individuals, which are standard equipment in the recent model-systems. It must of course be recognized that there is profound uncertainty as to post-war savings patterns, and that the unexpected readiness of the public to save during the war registers at least a possibility that full-employment income levels would lead to ratios of individual savings to disposable incomes far above those previously experienced. But the inter-war regressions of consumption on disposable income on which the model-makers rest their case are *prima facie* the record of years of sharp fluctuations (not of a range of equilibrium levels of income each maintained for some time) and hence are not entirely relevant. Both the characteristics of the inter-war period and the apparent stability of the proportion saved over the long period 1879-1928¹¹ have led at

⁸ *Ibid.*, p. 353.

⁹ *Ibid.*, p. 361.

¹⁰ *Ibid.*, p. 363.

¹¹ This is based on the stability of net capital formation (roughly the sum of individual and corporate saving, with the former predominating) as a percentage of net na-

least some of the model-builders to think in terms of an upward trend in consumption, operating irrespective of income.¹² This "trend" must be construed as reflecting the upward drift of the standard of living. But why is there an upward trend in the standard of living? Basically, most economists would probably agree, because as incomes rise people recognize "needs" which they previously kept under when they were too poor to have any chance of satisfying them. Accordingly, this upward trend in living standards should probably be regarded as part of the response of consumption to income.¹³ In a static system, therefore, it might be more appropriate to show a marginal propensity to save from disposable income slightly above 0.10, in preference to the coefficients of 0.20 and upward which seem to be appropriate in dealing with year-to-year changes.¹⁴

Cumulative Factors

The model systems under study make no explicit allowance for

tional product (roughly equal to disposable income) as shown by Simon Kuznets, *Uses of National Income in Peace and War* (New York, 1942), and the fact that such fluctuations as appear do not seem to be linked with the rate of growth of income. By decades, Kuznets shows:

Decade	1879-88	1889-98	1899-1908	1909-18	1919-28	1929-38
NCF as % of NNP, current dollars	10.4	12.0	11.3	11.3	10.8	3.1
Outlay per consuming unit as % of previous decade	—	107.0	128.2	115.7	134.7	98.7

¹² Such an upward trend is included in the consumption-income relation used by Smithies (*Econometrica*, *op. cit.*, p. 6), and in the relation derived by L. J. Paradiso which is used in the National Planning Association pamphlet (*op. cit.*, p. 79).

¹³ A very interesting discussion of this issue is presented by P. A. Samuelson in his paper on "Full Employment after the War," in S. E. Harris (ed.), *Postwar Economic Problems* (New York, McGraw-Hill, 1943), pp. 32-37. Samuelson prefers to say that the consumption function has an upward drift through time rather than that the long-run elasticity of consumption with respect to income exceeds the short-run elasticity; but the only explanation of the drift he offers is an "enlarged scale of wants." He denies "that there is any guarantee that the upward shifts of the consumption schedule will be at a rate rapid enough to keep up with our productive potential; especially if the war and a prolonged period of depression keep us from knowing what we are missing in the way of new good things of life, so that our consumption 'requirements' increase more slowly than our productive requirements" (p. 33).

In short, Samuelson does seem to recognize that in a very long-run sense the upward trend of standards is an adaptation to income. But he would apparently not advise model-builders to assume that their model-systems are dealing with a long enough run to make a very low marginal propensity to save appropriate.

Professor Alvin H. Hansen, on the other hand, is inclined toward the view that the percentage of income consumed is stable through time. See his *Fiscal Policy and Business Cycles* (New York, Norton, 1942), p. 233, also pp. 236-38.

¹⁴ I am myself on record (*Rev. Econ. Stat.*, Aug., 1942, p. 104) in favor of writing a marginal propensity to save disposable income at 25 per cent. This was in a very different context, however: my object was to make a maximum allowance for the degree to which "normal" savings adjustments could be counted on to mitigate the wartime inflation problem.

cumulative factors. While it is somewhat dangerous to read interpretations of omissions into other people's work, I am inclined to venture that these omissions are intentional. The possibility that the accumulation of capital goods may damp investment is a standard part of the Keynesian background from which these model-systems spring; but since this is ordinarily taken as a bearish factor, its omission from consideration is presumably intended as a precaution against overstating the case for "stagnation" which the model-builders are developing. The possibility that accumulation of money and other liquid assets may stimulate consumption and investment is presumably left out of account as part of the general reaction against the quantity theory of money.¹⁵

There is a great deal of doubt as to the correct weight to be assigned to these factors; but as will be argued presently, this is no excuse for assuming they should carry no weight. The presumption is that the United States as well as Europe will come out of the war with a serious deficiency of housing and of many types of business facilities, as well as other durable goods, relative to high-employment volumes of activity and income. The problem of fiscal policy depends partly on the size of this deficiency, partly on the rate at which post-war net capital accumulation proceeds, and partly on the sensitivity of the demand for new durables to their accumulation—all matters which ought to be brought into the open as part of the problem the model-systems are designed to treat, however poor the evidence is for estimating them.

On the monetary side, experience since 1929 certainly justifies a reaction against the quantity theory of money and related doctrines; but it is possible that the reaction is going too far. Admittedly, it is hard to unravel the net effects of monetary changes. Through peace and war, however, the year-to-year changes in the supply of money and money substitutes have been in the same direction and of the same general magnitude as changes in expenditures.^{15a} While it is possible that this fact merely reflects the parallelism of the money supply with other factors of much higher causal importance, it is equally possible that this parallelism has caused part of the influence of money to be attributed to other factors. The deficits which the model-builders here under discussion think may be necessary are large enough to build up the public's liquid holdings by upwards of

¹⁵ Cf. P. A. Samuelson's omission of the stock of wealth from the list of variables affecting saving (S. E. Harris, *op. cit.*, p. 36) explicitly on the ground that this influence is "relatively minor in importance."

^{15a} Cf. C. Warburton, "Monetary Expansion and the Inflationary Gap," *Am. Econ. Rev.*, Vol. XXXIV, No. 2 (June, 1944), p. 305. Minor exceptions to the parallelism of year-to-year movements appear in 1926-27 and 1928-29.

5 per cent per annum, so that variations in these holdings are likely to be substantial enough to count. Both the peculiarities of the early post-war years and the effects of a long series of substantial deficits (or surpluses) can be adequately analyzed only by procedures which treat monetary influences as at least potentially important.

Fluctuations

The temptation to underrate the fluctuations problem is one of the most serious consequences of overconfident use of equilibrium models. It is true, of course, that the success of a full-employment policy implies a rather small amplitude for fluctuations of total activity, since intense depressions are supposed to be banned. But this does not settle the issue. Fluctuations in the *intensity and direction of the "spontaneous" forces* in the economy with which policy must deal are not ruled out by pronouncing the words "stable full employment" as an incantation. Avoidance of fluctuations in total activity implies success in offsetting (or using) fluctuations in these forces through policy action.

These tendencies to fluctuation are very likely to be serious not only during the demobilization period but for a decade or more beyond. In an economy which had been stable for some time, it might reasonably be assumed that the "damping" tendencies most econometric workers believe in would have largely eliminated this problem. But for the visible future we shall not be living in that kind of economy. We are coming out of a period of unprecedented fluctuations in both the scale and the composition of the national output. In consequence the composition and age-distribution of our physical wealth and the various parts of our labor force will call for changes in the composition of current output and the fields to which new workers are to be guided. Furthermore people's expectations will be unstable. A static model-system cannot express these forces making for fluctuations; and this limitation must always be kept in mind in using such a system.

Assumptions of Ignorance

It is always a puzzle how to deal with causal relationships which are known to exist, in the absence of adequate quantitative knowledge. The literature under discussion in this paper shows a tendency to cut the Gordian knot by ignoring the relationship—plainly an unsatisfactory remedy.

The chief relations involved are those determining the volume of private investment. We find Kaldor, for example, writing the same figure for private home investment outlay under all the circumstances represented by his alternative "Routes to Full Employment," despite the fact that tax revenues range from £460 million in Route III up to

£1710 million in Route II—a range of 24 per cent of the assumed full-employment national output.¹⁶ It is scarcely conceivable that such a difference in taxes should have negligible effects upon investment. Admittedly, it is hard to justify any specific numerical coefficient linking investment with revenue. But a coefficient of zero is as much a specific numerical coefficient as any other—and any coefficient reflecting a negative correlation would surely be more defensible.

Some sort of recognition must plainly be given to the effect of activity on investment—both the components of gross capital formation reflecting replacement of goods worn out, and net investment. At this point Kaldor simply writes investment at £400 instead of £360 million, as we have seen;¹⁷ since this is a net figure, the implied increase in gross capital formation is greater by whatever increase in depreciation is involved. Musgrave¹⁸ operates with an assumption of a full-employment level of investment when defining the initial deficiency in income, with the consequence that neither the character of the potential under-employment equilibria nor the effect of the compensating fiscal-policy adjustments is explicitly mapped out.

Mosak and Smithies¹⁹ protect the reader by treating the *amount of investment required to balance the national product accounts* as a residual in their calculations, and inviting the reader's own judgment as to the attainability of the required amount under the assumptions made. This frank treatment of an area of ignorance by leaving part of the model-system incomplete has much to commend it; but of course it still leaves the problem of what the undefined relations are actually like.

The evidence on the effect of activity on investment is very unreliable for statistical reasons,²⁰ and there is a wide range of possibilities. Clearly for each particular firm, pressure of productive activity upon facilities (so that new facilities are needed to permit handling more business, lower costs on existing business, or both) is a necessary if not a sufficient condition for investment in equipment, buildings, etc. At first glance this may seem to be merely a question of impact effects. But a sustained high level of activity means both more rapid wearing out of existing facilities and a wider field for cost-reducing installations, so that a long-term effect of activity on investment must also be accepted. The likelihood of a substantial effect is sometimes ruled out on the ground that unless investment is insensitive to activity the

¹⁶ Beveridge, *op. cit.*, p. 363.

¹⁷ See above, p. 535.

¹⁸ *Am. Econ. Rev.*, Vol. XXXV, No. 3, pp. 387-99.

¹⁹ *Econometrica*, *loc. cit.*

²⁰ See the discussion between L. Klein and M. Ezekiel in *Econometrica*, 1943 and 1944.

combined effect of activity on consumption and investment may be so strong as to yield models that are highly unstable or even "explosive"—*i.e.*, not tending to find any other equilibrium position if pushed upward or downward from an original equilibrium. If we postulate a high degree of stability, we must infer that activity affects saving a good deal more strongly than investment. But the postulate should not command too much confidence. In the first place, the economy is not highly stable on the record. In the second place, most changes in the "active variables" of policy have probably been reversed before their consequences have been fully worked out.²¹ In the third place, some of the "dynamic" elements neglected in a static model-system probably have important stabilizing effects.²²

Another field in which assumptions of ignorance must be handled gingerly is that of foreign trade. In short-period analysis, the best way to manage this problem would probably be to analyze the effects of activity on imports and exports separately and combine the results into an estimate of the foreign balance. The same procedure might also be appropriate for long-period analysis aimed to show the requirements which domestic employment policy may impose on foreign trade and international currency policy. But if the objective is to show the framework within which domestic employment policy must operate, in terms of potential under-employment or full-employment equilibria, it does not make sense to assume that there will be a foreign balance larger than can actually be financed.²³ In any model-system representing long-run relationships, it must be supposed that imports and exports will balance—if we include in both totals service transactions as well as security purchases. Only if it can be shown that a higher level

²¹ Followers of Keynesian doctrines should bear in mind that the degree to which national income exceeded depression-trough levels during the 1930's was not perfectly correlated with the size of the deficit; cumulative effects of the early deficits may explain how the deficits of \$3.6 and \$3.7 billion in the fiscal years 1939 and 1940 came to be associated with much higher national incomes than the \$3.8 billion deficit of fiscal 1935.

²² The following comment on this point of view, made in a letter from Professor P. A. Samuelson, seems to me to sum up very well the opposing view: "Hart's remarks concerning the empirical validity and analytical fruitfulness of assuming an 'unstable' system are interesting and *logically* tenable, but to me [P.A.S.] unconvincing. The historical record shows fluctuation—not necessarily explosive instability. To assume that multiplicands will conveniently vanish or reverse themselves so as to keep things finite is either gratuitous or involves implicitly considerations of a wider system which is 'stable.' Mathematically, the introduction of lag or delayed effects simply changes the requirements of stability; it does not preclude the 'necessity' for stability. In a really unstable system, all intuitively sensible results tend to become exactly reversed, especially on the (quite irrelevant!) comparative statistical level. Finally, an unstable system is really not to be desired even by optimists, because the knife cuts both ways."

²³ Kaldor (*op. cit.*, p. 363) writes an impossibly heavy import balance in his standard set of models, but offers an alternative set (p. 365) with no adverse balance.

of activity favors a larger export balance on security account does it make sense to assume an increased "leakage" through foreign trade as higher levels are achieved. My provisional inclination is toward making just such an assumption of ignorance as I have been criticizing above, and assuming the foreign balance to be independent of the level of activity—clearly a dangerous assumption, in need of review—for purposes of model-building.

The effect of income levels on income distribution is another critical area of ignorance. Mosak²⁴ operates with a set of equations based on undeflated figures for 1929-40, which for reasons argued above in relation to profits are probably useless for gauging the difference between potential equilibrium positions; these equations imply some increase of inequality at higher national product levels. Fortunately, *marginal* propensities to consume, etc., are apparently less variable over the income scale than the averages; so that any assumption over a fairly wide range will give about the same model-system.

Formulation of Relations

As the recent model-systems are formulated, it is far from easy for a reader who finds the answers disconcerting to make up his mind how far he is confronted with the results of assumptions he is unwilling to accept, and how far with the results of assumptions he is willing to accept but has not previously worked through to conclusions. There is still a great deal of room for ingenuity in developing ways to map out the effects of variant assumptions about the underlying parameters of the system.

From this standpoint, it is particularly awkward to pack up a number of assumptions in a single assumed "multiplier," as Musgrave does.²⁵ The multiplier in the strict sense of the reciprocal of the marginal propensity to save is itself a fairly complex concept, since savings from corporations as well as individuals have to be allowed for. Musgrave's assumed value of 2 for the multiplier in question indicates that he is dealing with a variant concept; and any such variant is bound to be still more complex.²⁶ The reader is on much more secure ground if multiplying factors are treated as derived magnitudes rather than elementary assumptions.

Another weakness in the formulation of the recent systems is a tendency to treat significant variables in ways which prejudice policy questions. This is partly a question of omitting variables from the list.

²⁴ *Econometrica*, loc. cit.

²⁵ *Am. Econ. Rev.*, Vol. XXXV, No. 3, pp. 387-99.

²⁶ For illustrations of such variants and their derivation, see the Appendix to this article.

Omission of the stocks of money and of durable goods was discussed above; the difficulty of fitting interest rates into the list of variables creates additional temptations to underrate monetary possibilities. There is also the question how variables are classified. In Kaldor's model-system, for example, corporate savings are treated rather casually as a passive variable which must be expected to respond to changes in active variables of fiscal character. On the face of his figures, however, policies designed to act via corporate savings might under British conditions be very potent. It would be easy to add to his four "Routes to Full Employment" a fifth under which the national product of 1938 could have been brought to a full-employment level, without changes in government revenue and expenditure, by securing the disbursement of part of the net corporate savings.²⁷

Misunderstandings arise very easily out of the mere form in which the results of model-systems are arranged. For example, the final stage of Dr. Mosak's analysis appears in his tables in the following form (abbreviated here to save space):

Assumed level of gross national product (billion)	\$150	\$160	\$170	\$180	\$190	\$200
Mosak estimates of amount of government expenditure plus private gross capital formation required to use part of GNP not attributed to consumption: ²⁸						
1. With 1944 taxes, except no excess-profits tax	\$59.3	64.6	69.9	75.3	80.6	85.9
2. The same, except individual income tax at 1941 rates and exemptions	\$52.7	57.3	62.1	66.8	71.6	76.3
3. The same, except corporate and individual income tax at 1940 rates, etc.	\$49.8	54.1	58.4	62.7	67.1	71.4

The figures in the range near supposed full-employment levels, at the right, being enormously higher than any reasonable estimate of in-

²⁷ According to Kaldor's figures (*op. cit.*, pp. 355, 359) undistributed profits in 1938 were £330 million, of which taxes took £98 million, leaving £232 million net of tax. With a rise of output by £500 million, net savings would have risen by £120 million, of which £45 million is net individual saving, against a rise of £40 million in investment. What is required, then, is a corporate savings policy which would have caused such savings to fall instead of rising—by enough to offset the £5 million excess of added individual savings over added investment, *plus* any rise in net individual savings arising from the implied increase in dividends. If we put this induced rise in net individual savings for illustration at $\frac{1}{4}$ the rise in dividends, a policy which would bring undistributed profits (net of tax) to an even £200 million at full employment would have done the trick. This would have implied additional profit distribution of £107 million, net of tax (since undistributed profits net of tax in Kaldor's full-employment model appear as £307 million), raising individual net savings from £253 to £280 million, but cutting total net savings at full employment from £560 to £480 million. The permitted £200 million of undistributed profit would still have been 3.6 per cent of national income at full employment, as against 4.5 per cent in actual 1938! With less unreasonable assumptions about the proportion of additional product going to profit (see text, p. 535 above), a still more modest adjustment might have done the trick.

²⁸ *Econometrica*, *op. cit.*, Table 3B, lines 12-13, and 3C, line 14.

vestment, it might appear that unless there is something wrong with the arithmetic we should plan for enormously expanded income-supporting government expenditures. Had the revenue data been summarized in parallel form, however, the inference might have been different; results are as follows:

Assumed gross national product (billion)	\$150	\$160	\$170	\$180	\$190	\$200
Mosak estimates of revenues of all government bodies, excluding social security: ²⁰						
1. With 1944 taxes, except no excess-profits tax	\$37.4	40.3	43.4	46.6	49.6	52.8
2. The same, except individual income tax at 1941 rates and exemptions	\$28.9	31.0	33.3	35.6	37.7	39.9
3. The same, except corporate and individual income tax at 1940 rates, etc.	\$24.4	26.2	28.0	30.0	32.0	34.1
Amount of government deficit plus private gross capital formation "required": ²¹						
1. With 1944 taxes, except no excess-profits tax	\$21.9	24.3	26.5	28.7	31.0	33.1
2. The same, except individual income tax at 1941 rates and exemptions	\$23.8	26.2	28.8	31.2	33.9	36.4
3. The same, except corporate and individual income taxes at 1940 rates, etc.	\$25.4	27.9	30.4	32.7	35.1	37.3

Comparison of the figures shows that the situations calling for astronomical government expenditures to sustain employment are off the map as far as policy goes. A federal, state and local tax revenue of \$52.8 billion at full employment would be desired only in one of two contingencies: (1) if the public demanded government expenditures, for the sake of benefits from those expenditures other than sustaining employment, of roughly this magnitude; or (2) if with much lower government expenditures experience showed that a large government surplus and rapid debt retirement did not interfere with prosperity. If experience showed a large deficit to be necessary, public policy would inevitably move toward it largely by lowering taxes rather than solely by raising expenditures. In short, the reader's eye should move downward as it moves to the right along the table of "required" amounts of government expenditure plus private gross capital formation—and if Dr. Mosak's prognosis is correct, on down to lower levels of taxation than the table shows—rather than simply straight across the line, if he is to form a just impression.

Intangibles

Unavoidably, model-builders have to leave "*in ceteris paribus*" a number of factors of "economic climate" which may vary sharply

²⁰ *Econometrica*, *ibid.*, Table 1, line 3; Table 2, lines 5-6, Table 3B, lines 2-3, 5; Table 3C, lines 4-5.

²¹ By subtraction from the foregoing.

enough to affect significantly the working of the private investment process. Examples are labor policy, monopoly policy, and the general social climate of approbation or disapproval toward entrepreneurs and their activities. I can see no way to bring these factors inside a numerical framework; but I have an impression that the model-builders whose work I am discussing are giving them less than adequate recognition both in sizing up the historical record and in drawing policy inferences from their models.

II. *Proposals for Improved Model-Systems*

As was pointed out at the beginning of this article, there is no excuse for stopping with negative criticisms of existing model-systems. Such systems are a useful tool of policy analysis; the question is how to improve them.

Possibilities of Dynamic Model-Systems

The defects just analyzed trace largely to the attempt to derive static relations. Obviously, then, one possible remedy is to try to derive "dynamic" systems of relationships, in which the timing of the events that the variables measure is taken into account. Methods for such an analysis have been developed by the school of econometric workers following Tinbergen; and the Cowles Commission is pushing research along these lines. In principle, a realistically correct system of relationships of this type would provide a much better guide than any static system since it would show the consequences of following any specified path of policy from a specified date onward. A static system could of course be derived from it by solving the equations on the assumption that successive values of the active variables were all equal (or differed only by a growth coefficient).

Merely to wait for the completion of this econometric analysis, however, is not a safe reliance. In the first place, policy questions will not wait, and the job may prove a long one. In the second place, one must not exaggerate the gains from its formal completion. For technical reasons, such a dynamic analysis is limited to a rather small part of the total mass of available evidence. Its time span is limited by the fact that some key series run out not many years in the past. In view of the limited number of observation years, of the high inter-correlation among the various series which might be used, and of computation difficulties, the list of variables recognized explicitly has to be held down, and cannot take in all those of importance for fiscal policy problems. Furthermore, it is always likely in such a statistical operation that the apparent weights of different variables in "explaining" the changes under study will be misleading because one variable "picks up"

weight which properly belongs to another highly correlated variable. Still further, it is likely that the effects of changes in the active variables, as distinct from the effects of differences in their levels, might be rather drastically altered by the adoption of a strong fiscal policy.

The suggestions which follow are aimed at patching up static systems of the general type discussed earlier in the paper, rather than at developing a fully dynamic system.

Classification of Variables

A general scheme of classification of variables was suggested at the beginning of this article. The list of "active" variables, supposed subject to change by positive policy action, should include as a minimum:

- Expenditures by government bodies on "real" goods and services;
- "Transfer payments" (relief, social security benefits, etc.) for which no services are received;
- Corporate profits taxes;
- Other business taxes (excise, property, etc.);
- Personal taxes (perhaps itemized by types).

No way to express these variables is ideal for all purposes. The tax variables, in particular, are somewhat awkwardly expressed by revenues, but hard to express in any other way. Public policy, of course, operates in the first instance on tax rates and exemptions rather than on tax revenues; and for such purposes as explaining the behavior of private investment it is primarily rates which are relevant. On the other hand, tax revenues lend themselves much better than rates to being summed up by indices which can be manipulated conveniently in a model system; and revenues rather than rates come in question in most of the relations determining consumption. On the whole, it probably is best to think of revenues as the variables,³¹ while keeping track of the way in which revenues would vary, at different rate levels, if product levels were modified.

As "passive" variables, it is appropriate to list at least:

- Private consumption;
- Private investment (gross or net);
- Income payments;
- Disposable income;
- Individual savings.

It may be appropriate to list separately various components of consumption, investment, and income payments. Two items seem to be

³¹ Note that the effects of changes in government expenditure, investment, etc., "other things equal," may be strongly affected by the question whether tax rates or tax revenues are taken as part of those "other things."

in a doubtful group—to be listed as “active” variables for analyzing some policy possibilities, but as “passive” for others:

Corporate savings (gross or net of depreciation, etc.; if the latter, depreciation should appear separately among the passive variables);

The foreign balance (unless treated as part of investment).

Beveridge and Kaldor appear to regard private investment as an active variable—*i.e.*, set in amount by state decisions;²² but this point of view does not seem to extend to American discussions. As already mentioned, the stock of money and the stock of durable goods should appear as cumulative variables.

Structure of Relations

The system of relations among these variables must necessarily include the accounting equations (more strictly, identities) which result from the fact that most of the active and passive variables are components of national product and expenditure. The system must also include several equations (or if preferred, diagrams) reflecting economic influences, thought of as relations in under-employment or in full-employment equilibrium. As a minimum, there must be relations:

- (1) Showing consumption as a function of:
 - Transfer payments,
 - Other income payments,
 - Personal taxes, and
 - Money stocks;
- (2) Showing investment as a function of:
 - Activity, measured by gross national product or major components (it is algebraically convenient to use consumption plus “real” government expenditure, less business taxes other than corporate profits taxes),
 - Current depreciation, etc.,
 - Current net corporate saving,
 - Corporate profits taxes,
 - Personal taxes, and
 - Stocks of capital goods;
- (3) Showing net corporate savings (if not treated as an active variable) as a function of:
 - Activity, measured as above,
 - Corporate profits taxes, and perhaps
 - Personal taxes.

This structure is capable of expressing substantially all the relation-

²² Beveridge, *op. cit.*, pp. 177-78, 349.

ships contained in the recent model-systems (besides other relationships now left between the lines), in a form that permits testing the effects of varying assumptions about the three major functional relations as well as varying values of the active variables. On the other hand, it stops far short of making all the relevant variables explicit. In particular, it leaves "impounded in *ceteris paribus*" the factors which govern the proportionate share of different groups of income recipients in income payments, the foreign balance, relative prices, and interest rates; and it is not capable of tracing out the path of adjustment in case of any quick change in the active variables. A picture of "moving equilibrium" can be built up by expressing the cumulative variables in terms of successive values of the related active and passive variables (the stock of capital in terms of cumulative capital formation less cumulative depreciation; money chiefly in terms of cumulative deficits), and by introducing trend factors into the basic equations; but there should be no pretense that this is a substitute for full dynamic treatment.

Admission of Evidence and Handling of Uncertainty

At least pending completion and audit of "dynamic" statistical studies, we can scarcely avoid imitating the builders of the recent model-systems, and piecing together impressions of the parameters of the system from scattered sources. Generally speaking, the relations in which we are interested are such that a statistical "regression analysis" for part or all of the inter-war period is a sensible way to assemble at least part of the evidence. But as will be seen from the criticisms of a number of such analyses which are offered earlier in this paper, there is a good deal of doubt as to the possibility of finding out much about the effects of *levels* of the various magnitudes in question from the record of the inter-war period, in view of the prominence of *fluctuations* during that period.

There seems to be no room for a testing of such a static model-system as a whole by "fitting" it to past periods and checking its hind-casts. Unfortunately the instability of the inter-war period was such that the only period in which levels rather than fluctuations may have been dominant was 1926-28. It might be reasonable to require that a model-system set up for the post-war should "fit" 1928. But in view of the probability that trends were important, this test is too easy; any system can be made to "fit" by apparently reasonable trend allowances.

The art of handling such a system is to try to make reasonable allowances for uncertainty about such magnitudes as the marginal propensity to consume by inserting a whole battery of alternative assumptions in succession and attempting to map out the field of reason-

ably likely equilibrium positions. As was noted above, the recently published model-systems are deficient in this respect. They allow for alternative values of the active variables; but they are stated in terms of single-valued assumptions regarding the basic relations listed above, except for some contemplation of alternatives for private investment.

General Character of Results

My own attempts at model-building have not yet reached the point where I am satisfied with my map of possibilities, and in any case would require too much space and too much technical analysis for publication here.³³ But some sketch of preliminary results seems in order here.

To begin with I conclude tentatively that to estimate even within 10 per cent the level of gross national product corresponding to a given set of active variables is likely to be very difficult. All the uncertainties of the situation are compounded at this point. The presence and strength of a tendency for the standard of living to adjust to income; the presence and strength of an influence of "excess liquidity" on consumption and investment; the strength of the influence of activity on investment; the presence and intensity of a long-run shortage of real capital relative to post-war labor force and income levels—all are very deeply uncertain, and all are highly relevant. It cannot be disproved that there is a possibility of under-employment equilibrium, at levels so low as to mean very serious unemployment.³⁴ But neither can it be disproved that there is a possibility of equilibrium at full employment with a relatively orthodox fiscal pattern.³⁵ Not until we have at least a few years of post-war experience can we expect to make good estimates of this sort.

On the other hand, it appears that we can estimate a good deal more

³³ A technical analysis is in preparation with a view to possible publication elsewhere; and some figures are given in the Appendix to this paper.

³⁴ This may be seen from the figures based on Mosak given in the text above, pp. 542-43. At a \$150 billion level of GNP (which at the assumed 1944 prices means very heavy unemployment), a balanced governmental budget of around \$30 billion (calling for 1944 business taxes and 1941 personal taxes, plus about \$1.2 billion of additional revenue) would leave a need of \$23 billion of private investment, which might very possibly not be forthcoming. These figures seem to me to have a pessimistic "slant," but are definitely not off the map of possible outcomes.

³⁵ With relatively low (1940) taxes, Mosak shows \$37 billion of private investment needed to give a \$200 billion GNP with a balanced budget. This is no larger relative to GNP than the investment of the best years in the 1920's, but does look to be past the range of reasonable likelihood as an equilibrium (rather than a peak) position for the post-war. Adjustments to correct Mosak's pessimistic "slant" on the items of the calculation, however, suggest about \$31 billion for required private investment, which is not at all out of the range of possibilities so far as I can see.

definitely the effect of a marginal billion of budget deficit or surplus on the equilibrium position. As so often happens in economics, there is a better basis for forecasting the *differential effect* of preferring one policy to another than for forecasting the *absolute effect* of either. My tentative conclusion is that an extra billion of deficit corresponds to at least an extra 5 billion dollars added to the equilibrium gross national product, and perhaps 10 billion or more. This may be roughly checked from Mosak's figures above.³⁸ It follows that we can plan on the assumption that a change of a billion or two in the government surplus or deficit is quite large in terms of its long-run effects; impact effects, however, are a separate problem. If the period in question is long enough or the size of the surplus or deficit great enough to affect the quantity of money significantly, effects may be greater.

III. Policy Uses Of Model-Systems

If we could suppose that a model-system could give a perfect forecast—not only of equilibrium positions but of transitional reactions taking effect at stated dates—such a system could provide substantially all the needed data for fiscal policy. We should simply have to ask our model-system what would happen under different policies, and advocate that policy (or cluster of alternative policies) under which the outcome would be satisfactory.

The only trouble with this pipedream is the imperfection of foresight. The mere fact that the recently published model-systems (as well as that developed in connection with this paper) are static testifies that they are incapable of guiding policy in this way. Furthermore, as already indicated, the parameters determining the locus of equilibrium positions are subject to great uncertainty. What use have we for a forecasting machine whose results must be regarded in advance as uncertain?

The answer is, of course, that policy cannot allow itself either to become a slave to a particular forecast or to be paralyzed by uncertainty. Because our foresight is imperfect, we must be in a position to adapt policy as circumstances develop. But to say this does not get us

³⁸ Looking at the revenue-estimate part of the table on p. 543 above, the \$31 billion figure for \$160 billion of GNP in line 2 (with 1941 income tax rates) would correspond to revenue in line 3 (at 1940 income tax rates) of \$31 billion at about \$185 billion of GNP. If private investment were the same in both cases, government expenditure would have to go up by $(\$35.1 + 32.7)/2 = \26.2 , or about \$7.7 billion for a \$25 billion rise in GNP. On the other hand, Mosak's model-system provides for a \$1 billion drop in the Social Security deficit between these points, so that the net rise in governmental deficit is only \$6.7 billion if investment is constant. A 5/1 ratio between added GNP and added deficit is therefore obtained if the added \$25 billion of GNP (coupled with a sharp tax cut) can generate a difference of as much as \$1.7 billion in private gross capital formation.

around the necessity of making some advance commitments in the light of such foresight as we can muster.

Essential Advance Commitments for Monetary-Fiscal Policy

The main advance commitments which seem to be unavoidable may be listed as follows:

- (1) Scale of routine operations of government;
- (2) Scope of subsidies, social security benefits, and other transfer payments;
- (3) Range of socialized or semi-socialized industries constituting the field for public investment;
- (4) Structure of the revenue system (types of taxes, etc.);
- (5) Standard tax rates and exemptions;
- (6) Advance preparation for manipulation of revenues and expenditures;
- (7) Provision for control of the money supply, and for manipulation of that supply through public debt operations, central bank policy, etc.

The models help primarily toward solution of the first five questions; the last two turn chiefly on the amplitude of fluctuations likely to arise from "dynamic" factors, and secondarily on the probable error of forecasts of equilibrium positions.

Other factors bearing on the first three questions suggest that, for all government bodies combined, expenditures below 25 billion dollars (probably below 30 billion) are out of the question; on the other hand, if it were not necessary to limit the size of deficits to avoid inflation, other considerations would not maintain any large volume of taxes. Mosak's figures suggest that, with taxes completely abolished, only about 45 billions of government expenditure plus private investment would be required to fill out a full-employment national product.³⁷ It follows that tax cuts are definitely capable of generating any deficit conceivably needed (unless for a temporary emergency) without any "abnormal" government spending at all and that, even if deficits are limited only to avoid inflation, all public spending pro-

³⁷ The effect of dropping all taxes, in Mosak's \$200 billion model, would be as follows:

Eliminating \$16.4 billion of business taxes would raise "private gross product" from \$166.6 to \$183.0 billion;

Eliminating \$6.6 billion (or more) of corporate taxes as well would raise "national income after corporate taxes" from \$166.5 billion (or less) to \$189.5 billion, and income payments from \$166.5 (or less) to about \$182 billion;

Eliminating \$7.8 billion (or more) of personal taxes as well would raise disposable income from \$149.4 billion (or less) to \$182 billion, and consumption from \$128.6 billion (or less) to \$155 billion.

posals need to be justified as worth the levying of otherwise avoidable taxes of roughly the same dollar amount. The alleged necessity of planning for gigantic outlays does not follow from the models; if this claim of necessity can be defended, it must be not merely in terms of the likelihood that a deficit will be needed, but in terms of some combination of superior effects on long-run productivity, higher priority in terms of immediate enjoyments by the public, or superior flexibility for meeting dynamic shifts, as compared with tax cuts.

There does seem to be a pretty strong case against the possibility of maintaining prosperity with a large budget surplus continued over a long period of time. The case rests, on closer analysis, on the assumption that the effects of war-accumulated liquidity on consumer and business expenditure will not pull savings for long below "normal" percentages of income. But the likelihood that we may need to operate in the range from a 5-billion-dollar surplus to a 5-billion-dollar deficit seems very strong. This implies, in regard to questions (4) and (5) that we cannot afford not to maintain the structure of a really powerful tax structure—though we may be able to use it a good deal below capacity.

Flexibility

The initial commitments should include provision for flexibility to cope with surprises in the short run—before we have either had time to adjust the basic structure of the fiscal system or even to determine whether the deflationary or inflationary drifts we are experiencing are deep-seated enough to justify such an adjustment.

How far it is desirable to build automatic flexibility into the system (as by extending current tax payments or social security), or how far it is desirable to set up machinery for swift changes in tax collections, transfer payments or public works depends on our estimates of the degree to which we may be surprised by future developments despite all foresight. Such estimates cannot be derived from static models. As was indicated above, the model-builders in their pre-occupation with equilibrium have tended to push into the background the whole question of economic fluctuations. If the whole problem were simply how to keep on operating a stabilization system with twenty years of successful stabilization behind it—which seems to be the problem Beveridge and many of his disciples set themselves—this consideration might be unimportant. But between us and this happy state lies not merely the immediate post-war transition but a much longer period during which the reverberations of past fluctuations and the public's willingness to speculate in ways which imply the failure of stabilization may be very troublesome. My feeling is that an adequate fiscal-monetary system

for this stage of economic stabilization should be able within six months to arrest—better, of course, to reverse—the effects of a 5-billion-dollar drop in the annual rate of private investment. But this is a provisional finding, subject to revision as relevant evidence turns up.

Contingent Policy

The school of economists from which these model-systems spring seems to feel that the only lesson economists need to convey to the public is that government spending can remedy depressions. Certainly it would be irresponsible at this stage of the nation's history to pooh-pooh the deflation danger or the usefulness of deficits (if not necessarily of spending) to correct it if and when it strikes. For while deflation may not be a continuous threat, we can certainly not hope to get through the next ten years—probably not through the next five—without confronting strong deflationary pressure at some stage.

Particularly in view of the strong political pressures against continuation of effective price control, however, it would be irresponsible to overlook the inflationary dangers in sight for the transition. Furthermore, it would be also irresponsible to overlook the likelihood of a fairly prolonged post-war plateau if the transition from war to peace goes well. Such a one-sided view may not only contribute to inappropriate policies during the years in question but also interfere with the application of anti-deflationary policies when needed. If we persuade the public now that it should put all its vigilance into watching for the deflationary wolf, an inflationary experience would be terribly misleading to public opinion. By the time the boom gave way and the wolf became really dangerous, the public might have made up its mind he did not exist. The deflationary wolf is real; but he may not be the nearest peril. It is the business of the economic profession to convey that there are inflationary contingencies and deflationary contingencies; that there are policies appropriate to each; and that there are ways to plan the initial commitments of policy which leave us in a position to meet either contingency.

APPENDIX

It is impossible within the scope of this article to present a full-dress discussion either of the mathematics of model-systems or of the empirical magnitudes involved. But at least a sketch should be presented here to give the reader an impression how far my disagreements with the model-builders referred to above are concrete. For brevity, I have limited my direct comparisons to Dr. Mosak's model-system.

My disagreement is on two fronts: (1) I believe the basis on which Mosak

(and also several of the other model-builders) set up their relations is likely to give a misleading impression as to the rôle of government expenditures in a full-employment policy; and (2) I believe the assumptions as to concrete magnitudes adopted by Mosak are off at one edge of the field of reasonably likely values, giving an extremely pessimistic forecast of the functioning of the private economy in a form that suggests it is a middle-of-the-road forecast.

Basis of Presentation: The Multiplier Proper

The dispute over the basis of presentation may most easily be visualized in terms of a family of "multiplier" concepts. In a nutshell, a Keynesian "multiplier" shows the ratio between a change in the level of national product and the change in the level of "offsets to saving" which is necessary to sustain it. Since saving is assumed to be higher when incomes are higher, and "offsets" must equal saving, the amount of offsets needed per unit of added GNP may be inferred if we know how much saving will rise per unit of added GNP. If we think in terms of a billion dollar increment of GNP, the "multiplier" is a fraction with a numerator of unity and a denominator which is *either* the sum of the increments of individual and of corporate (*ex post*) saving *or* the sum of the offsets provided by business and government—*i.e.*, the sum of the increments of investment and of government deficit. (Since we are thinking in terms of GNP, we may think of both savings and investment as *gross* of depreciation and related accounts, but of savings as *net* of dis-savings by individuals outspending their incomes and by corporations paying dividends out of surplus.) In algebraic notation, if we write E for government expenditures, T for tax revenues, I for private gross capital formation, the multiplier is $d(GNP)/d(E-T+I)$.

Expansion Factor Implicit in Mosak Analysis

Dr. Mosak's point of view may be paraphrased as follows: Of any increment of GNP, only a fraction becomes an increment of consumers' disposable incomes, the remainder being absorbed by "leakages"—chiefly increments of taxes and corporate savings. Of the increment of disposable income, only a fraction is spent, since part is saved. If (say) $3/8$ of the increment of GNP goes in "leakages" and $1/5$ of the remaining $5/8$ is saved, then only half of any increment in GNP can be accounted for by added consumption. If a balanced budget for federal, state and local governments combined would lead to an under-employment equilibrium with GNP at \$130 billion, to continue the illustration, this could be raised to \$200 billion only by adding \$35 billion to the sum of government expenditure and investment. This two-fold expansion represents a magnification factor similar to the multiplier as above defined except that the denominator lacks the term for taxes; the factor is to be written $d(GNP)/d(E+I)$. If tax rates are constant, taxes will of course move parallel to GNP, so that this factor by definition must be less than the Keynesian multiplier.

This approach to the problem implies a very curious sort of fiscal policy. In terms of the hypothetical illustration of the preceding paragraph, getting up from an under-employment equilibrium at \$130 billion to a full-employment equilibrium at \$200 billion implies an increment of \$35 billion in the sum of investment and government expenditure, of which the lion's share is to be assigned to government expenditure. But it also implies a rise in revenues of the order of \$15 billion. The implied program is to raise tax-financed government expenditures from \$25 to (say) \$40 billion, deficit-financed expenditures from zero to (say) \$15 billion, a raise of (say) \$5 billion in private investment making up the remainder of the \$35 billion increment in the sum of investment and government expenditure, and consumption rising \$35 billion. Assuming that experience demonstrated that a balanced budget yielded the \$130 billion under-employment equilibrium, it is hard to imagine who would advocate this sharp rise in tax-financed expenditure.¹

Leverage Factors

As a guide to the problem of fiscal policy, it would be more useful to present results of analysis on a different basis, in terms of what Dr. Hansen calls "leverage factors."² If deficit-financed government expenditure and consumption are both at a higher level, both depreciation and net capital formation may be expected also to be higher; and when the change in deficit is thought of as the "active" factor, it is natural to regard the higher investment as a by-product. The "leverage factor" is to be calculated by *reducing* the denominator of the "multiplier," so that it becomes $d(GNP)/d(E-T)$. The leverage factor must therefore *exceed the multiplier*. In principle, different leverage factors must be recognized for deficits arising from added expenditure (if desired, classified by type), or reduced tax revenue of any of the major sorts.

Concrete Differences

In principle, all these variants of the multiplier concept lend themselves to calculation from any given set of assumptions about "leakages," marginal propensities to consume, influences of output upon revenues, etc. As was indicated above, my impression is that Dr. Mosak and the other model-builders whose work is discussed in this paper have introduced a marked pessimistic slant into their underlying assumptions. My reasoning on the chief items of the calculation is indicated in the text. The following tables tie these items together in terms of the three multiplier concepts just discussed.

¹ I can see no reason to differ with the finding of the model-builders (Musgrave, *Am. Econ. Rev.*, Vol. XXXV, No. 3, pp. 387-400; Beveridge, *op. cit.*, pp. 262-63) that the theoretical possibility of eliminating a "deflationary gap" by having a very large balanced budget would call for so large a budgetary adjustment that it could never become a practical counsel.

² *Fiscal Policy and Business Cycles* (New York, Norton, 1942), p. 264.

TABLE I—ESTIMATION OF MULTIPLYING FACTORS—TAXES AT 1944 LEVELS EXCEPT FOR REPEAL OF EXCESS PROFITS TAX

"Slant" of assumptions, expressed in terms of resulting multiplier	Ex-tremely Low	Mosak*	Moderately Low	Moderately High	Ex-tremely High
Marginal rates of change (per unit of GNP except as noted under G):					
(A) Tax revenues: 1944 taxes, except for repeal of excess profits tax	.32	.31	.30	.28	.26
(B) Depreciation, reserves, etc.	.03	.02	.02	.02	.02
(C) Net corporate saving	.04	.05	.02	.01	.01
(D) Decline in foreign trade balance	.04	.01 ^b	.02	.00	.00
(E) Sum of (A) through (D): Total leakages	.43	.39	.36	.31	.29
(F) (1-E) Residue after leakages	.57	.61	.64	.69	.71
(G) Marginal propensity to consume <i>per dollar of additional disposable income</i>	.77	.80	.83	.89	.91
(H) (F) × (G) Marginal propensity to consume additional GNP	.44	.49	.53	.61	.65
(J) (1-II) Reciprocal of Mosak expansion factor	.56	.51	.47	.39	.35
(K) (F) × (1-G) Marginal individual savings	.13	.12	.11	.08	.06
(L) (E) - (A) Leakages other than taxes	.11	.08	.06	.03	.03
(M) (K) + (L) Gross private savings: reciprocal of multiplier	.24	.20	.17	.11	.09
(N) Marginal domestic gross capital formation	.03	.05 ^b	.04	.06	.08
(P) (M) - (N) Reciprocal of leverage factor	.21	.15	.13	.05	.01
Computed multiplying factors:					
(Q) 1/(J) Mosak expansion factor	1.8	2.0	2.1	2.6	2.8
(R) 1/(M) Multiplier proper	4.1	5.0	5.9	9.4	11.
(S) 1/(P) Leverage factor	4.7	6.6	7.7	18.	—
Adjusted multiplying factors with corporate savings constant:					
(Q') Mosak expansion factor	1.9	2.1	2.2	2.7	2.9
(R') Multiplier proper	4.8	6.2	6.6	10.	12.
(S') Leverage factor	5.6	8.9	8.9	27.	—

* Based on range from \$150 to \$200 billion of GNP.

^b No magnitudes suggested by Mosak; midpoint of "moderately high" and "moderately low" adopted.

TABLE II—ESTIMATION OF MULTIPLYING FACTORS—INDIVIDUAL AND CORPORATE INCOME TAXES AT 1940 LEVELS, OTHER TAXES AT 1944 LEVELS

"Slant" of assumptions, expressed in terms of resulting multiplier	Ex- tremely Low	Mosak ^a	Moder- ately Low	Moder- ately High	Ex- tremely High
Marginal rates of change (per unit of GNP except as noted under G):					
(A) Tax revenues: individual and corporate income taxes at 1940 rates and exemptions; other taxes at 1944 rates	.20	.19	.19	.17	.16
(B) Depreciation, reserves, etc.	.03	.02	.02	.02	.02
(C) Net corporate saving	.04	.04	.02	.01	.01
(D) Decline in foreign trade balance	.04	.01 ^b	.02	.00	.00
(E) Sum of (A) through (D):					
Total leakages	.31	.26	.25	.20	.19
(F) (—E) Residue after leakages	.69	.74	.75	.80	.81
(G) Marginal propensity to consume <i>per dollar of additional disposable income</i>	.77	.80	.83	.89	.91
(H) (F)×(G) Marginal propensity to consume additional GNP	.53	.59	.62	.71	.74
(J) (1—H) Reciprocal of Mosak expansion factor	.47	.41	.38	.29	.26
(K) (F)×(1—G) Marginal individual savings	.16	.15	.13	.09	.07
(L) (E)—(A) Leakages other than taxes	.11	.07	.06	.03	.03
(M) (K)+(L) Gross private savings: reciprocal of multiplier	.27	.22	.19	.12	.10
(N) Marginal domestic gross capital formation	.03	.05 ^b	.04	.06	.08
(P) (M)—(N) Reciprocal of leverage factor	.24	.17	.15	.06	.02
Computed multiplying factors:					
(Q) 1/(J) Mosak expansion factor	2.1	2.5	2.6	3.5	3.8
(R) 1/(M) Multiplier proper	3.7	4.6	5.3	8.5	9.7
(S) 1/(P) Leverage factor	4.2	6.0	6.8	17.	43.
Adjusted multiplying factors with corporate savings constant:					
(Q') Mosak expansion factor	2.3	2.7	2.8	3.6	3.9
(R') Multiplier proper	4.2	5.4	5.8	10.	12.
(S') Leverage factor	4.8	7.4	7.6	26.	—

^a Based on range from \$150 to \$200 billion of GNP.^b No magnitudes suggested by Mosak; midpoint of "moderately high" and "moderately low" adopted.

We may conclude that:

(A) Under 1944 taxes, the multiplier proper is over twice the expansion factor which sums up Dr. Mosak's analysis, and the leverage factor substantially larger again. These differences widen as assumptions on consumption and investment grow more optimistic.

(B) While under 1944 taxes, the Mosak expansion factor is only 24 per cent larger on the "moderately high" than on the "moderately low" assumptions, the multiplier is 60 per cent larger, and the leverage factor 135 per cent higher. The economic potency of deficit financing, at the margin, is thus substantially affected by the actual size of leakages, marginal propensity to consume, and investment sensitivity; and accordingly we must take it as decidedly uncertain.

(C) *On these assumptions* refusal to tolerate a "leakage" through net corporate savings would substantially raise the multiplying factors.

(D) Similar conclusions hold under 1940 income taxes; though the effect of lower income taxes in favoring savings lowers somewhat the multiplier proper and the leverage factor.

A Sample of Contingent Calculations

As indicated in the text, my view is that a satisfactory handling of these questions involves formulating sets of relations in algebraic form, solving the resulting equations, and working out the consequences of variations over the field of likely values in the parameters expressing marginal propensity to consume, etc. There is space here only for a sample of the results.

Suppose the basic relations are given by:³

$$(1) C = a + b(TP) + c(RE + C + I - CS - BT - CT) - d(PT) + e(M);$$

$$(2) I = f + g(RE + C - BT) + h(CS) - i(PT + CT) - jZ;$$

$$(3) CS = k + m(RE + C - BT) - n(CT).$$

This is of course not the only possible linear approximation to such a set of relations; but I think its form is not unpalatable.

Suppose now we try to measure the "leverage factor" for *RE* upon *GNP*, in terms of possible values of the constants *c* (marginal propensity to consume income payments) and *g* (marginal propensity to invest net receipts of business from sales to non-business buyers). We must of course adopt supposititious values for the parameters *h* and *m* (which are the only two parameters other than *c* and *g* which under these assumptions bear upon this

³ *C* denotes consumption expenditure.

TP denotes transfer payments.

RE denotes "real" government expenditures.

I denotes gross capital formation (investment).

CS denotes corporate saving, gross of depreciation, etc.

CT denotes corporate profits tax revenue.

BT denotes other business tax revenue (chiefly excise and property).

PT denotes personal tax revenue.

M denotes stock of money.

Z denotes stock of durable goods.

Small letters denote parametric constants.

leverage factor); we may write h (marginal propensity to invest gross corporate savings) as 0.50, and m (marginal propensity of corporations to save net receipts from non-business buyers) as 0.05. The leverage factor then works out as follows:

c	.78	.80	.82	.84	.86	.88	.90	.92
g								
.00	4.3	4.7	5.1	5.7	6.5	7.2	8.4	10.2
.01	4.5	4.9	5.4	5.9	6.8	7.8	9.1	11.1
.02	4.7	5.1	5.7	6.4	7.2	8.4	10.0	12.4
.03	4.8	5.4	6.0	6.8	7.8	9.1	11.1	14.0
.04	5.1	5.7	6.4	7.2	8.4	10.0	12.3	*
.05	5.4	6.0	6.7	7.7	9.1	11.0	13.9	*
.06	5.6	6.3	7.2	8.3	9.9	12.2	*	*
.07	5.9	6.7	7.7	9.0	10.8	13.6	*	*
.08	6.3	7.2	8.2	9.7	11.9	*	*	*
.09	6.6	7.5	8.8	10.6	13.3	*	*	*
.10	7.0	8.0	9.5	11.6	14.9	*	*	*

* denotes over 15.0

As indicated above, the range of c from 0.83 to 0.89 may be taken as likely, and the range of g from .04 to .06, giving leverage factors from about 6.8 to about 14. This calculation is somewhat more refined than that in the tables earlier in this Appendix, allowing for influences via corporate savings, etc.; but it will be observed that these limiting values match roughly with those obtained in the previous table.

The algebra of this model-system shows rather similar leverage factors for all the fiscal active variables upon GNP. The general order of magnitude of all these leverage factors is given by cr when r is a factor equal to

$$\frac{1}{1-c-cg+cm-chm}$$

; and while the coefficients of cr and the terms not containing cr differ somewhat from variable to variable, the differences roughly cancel out.

CORPORATE RETAINED EARNINGS AND CYCLICAL FLUCTUATIONS

By SERGEI P. DOBROVOLSKY*

Corporate retained earnings, which reached high proportions during the twenties but were at a low ebb during the thirties, have in recent years again become a significant component of the total savings in the economy.¹ If business remains good and profits substantial in the post-war period, there is reason to believe that the practice of "plowing back" a considerable part of net earnings will continue.

Two approaches have distinguished the study of retained earnings in the last two decades. Students of economic theory have been interested in the subject mainly in connection with the investigation of cyclical fluctuations in the economy. Students of corporate finance, on the other hand, have approached the subject principally from the standpoint of the rights and interests of stockholders and management in individual enterprises.

This paper is chiefly concerned with the relation between retention of earnings and cyclical fluctuations. Issues pertaining to corporate finance, however, are also necessarily involved. For the effect of retained earnings on the amplitude of cyclical swings depends upon the amounts retained, the type of assets in which they are invested, and the character of charges made against surpluses during depressions. And these factors, in turn, are dependent in a large degree upon the attitudes of the owners and managers of corporate enterprises. Therefore, the last section considers the question of how the position of these parties is affected by the practice of retention.

I

The writers defending the policy of retention of earnings contend that it enables corporations to build up financial strength during the periods of business expansion and therefore increases their power of resistance to the adverse forces generated during the periods of business

*The writer, until recently associated with the National Bureau of Economic Research and at present with the Office of Strategic Services, is indebted to Professors Norman S. Buchanan and David L. Dodd for valuable critical comments on an earlier version of the paper. The views expressed by Mr. Dobrovolsky are his personal opinions.

¹The discussion in this paper is confined to nonfinancial corporations.

tistical investigations suggest, however, that in general corporations have not shown any tendency to accumulate "idle" cash during the periods of cyclical expansions in the past decades. It is in times of cyclical depression that a tendency to accumulate cash in excess of transaction requirements has been observed.⁴ We shall revert to this point later, when considering the periods of depression.

As to the argument that reinvestment of earnings is apt to lead to misallocation of resources, this contention has not been, and can hardly ever be, verified statistically. Doubtless, there have been numerous cases in which reinvestment of earnings has led to disappointing financial results. But the point at issue is whether or not the financial results of new investments made with the internal funds have *on the average* been less satisfactory than the financial results of new investments made with the funds obtained from the security markets. It has been rightly pointed out that the idea that somewhere in the capital market there are omniscience and wisdom in the use of corporate funds is quite unrealistic.⁵ Security markets are subject to waves of overoptimism and overpessimism to such a great extent that a mere assertion, unsupported by factual evidence, that misallocation of resources could be eliminated or even reduced materially by forcing corporations to obtain all funds for new financing from the capital market, does not look very convincing.

As mentioned above, corporations may reinvest earnings without as much concern for the rate of return as would be the case if the funds in question had to be obtained from the capital market. While this admittedly means that some funds may not be put to use where they could obtain the highest rate of return, it also means that some funds may be invested, which would not be put to use at all if an outlet for them had to be found through the capital market. The latter situation would be indicative of a greater degree of utilization of resources rather than of their misallocation.

To sum up: while the policy of retention of earnings may possibly aggravate conditions in the course of the expansion phase of the cycle, its influence should not, on balance, necessarily be adverse. For this policy affects the economy, of the type that we have in this country, in more than one way, giving rise to developments that tend to offset one another.

II

We may now turn to a consideration of the significance of corporate dissaving during the periods of business contraction. During such

⁴ Cf. Friedrich A. Lutz, *Corporate Cash Balances, 1914-43*, p. 5.

⁵ Cf. Norman J. Silberman, *The Dynamics of Business* (New York, 1943), p. 446.

periods the earned surpluses (*i.e.*, the accumulated undistributed earnings of the past years) of most corporations have been reduced owing to the payments of dividends in excess of current earnings and, in many cases, also on account of the deficits. Defenders of the prevailing corporate policies have claimed, first, that business dissaving in times of depression helps to maintain to a better extent the volume of payments in the economy and consequently tends to mitigate the severity of business contraction and of unemployment; and, second, that the ability to incur dissaving depends largely on the existence of the previously accumulated surpluses. We shall consider both contentions in turn.

As regards the mitigating rôle of business dissaving, it has been stated, for instance, that in the six years following 1929 American business paid out 34.5 billion dollars in excess of receipts, in the form of wages, taxes, dividends and other obligations which could not be met out of the low level of current gross income.⁶ Such statements create an erroneous impression that during the periods of depression corporations are able to put into circulation vast amounts of cash *over and above* the amounts flowing into their cash accounts from other parts of the economic system. It is sufficient to point out in this connection that the aggregate amount of cash balances of all nonfinancial corporations in this country was 7.3 billions at the end of 1929 and 6.7 billions at the end of 1935. Since a change in the cash balance over any given period is always a resultant of all cash receipts and all cash payments made within that period, it should be clear that payments of these corporations exceeded their receipts, over the 6-year period referred to above, by .7 billion only. In times when bank loans are expanded it is possible for business enterprises to inject new cash into the economy without diminishing their cash balances. But during the years concerned, corporate economy, considered as a whole, reduced its bank indebtedness, which means that there was destruction, and not creation, of cash through that medium.

The vast amount of business dissaving mentioned above indicates *not* the excess of cash payments over cash receipts, *but* the excess of total costs plus dividends declared over total revenues.⁷ The relationship between payments and receipts on the one hand and between costs and revenues on the other must be sharply distinguished from each other. Payment of a debt has no direct bearing on costs; receipt of cash con-

⁶ Cf. *Capital Goods and the American Enterprise System* (The Machinery and Allied Products Institute, 1939), p. 45.

⁷ Attention to this difference has been drawn by Don D. Humphrey in his article "Surpluses, Income and Employment," *Am. Econ. Rev.*, Vol. XXVIII, No. 2 (June, 1938), pp. 223-34. In the present paper it is discussed in somewhat greater detail. While in agreement with Mr. Humphrey on this point, the writer differs from him on some others, with the result that divergent general conclusions are reached.

sequent upon a sale of securities does not, in and of itself, increase the revenues. On the other hand, depreciation accruals, while being a part of the costs, do not involve immediate cash payments; gains resulting from an appreciation of assets are sometimes recorded as a part of the revenue though they do not directly bring in any cash. The cash position of an enterprise is determined solely by the relation of receipts to payments. Corporate dissaving, resulting from revenues insufficient to cover costs, may be accompanied by an increase in corporate cash holdings (when cash receipts exceed cash payments) just as well as by a decrease in corporate cash holdings (when cash receipts fall short of cash payments). When the former case occurs, accumulation of cash goes on concurrently with partial dissipation of the invested capital.

If it is assumed that in a pre-depression period corporate cash receipts from operations were equal to corporate cash payments and that these receipts fall off materially as the depression develops, corporations can maintain the former level of payments only by drawing on their cash balance, by selling some nonoperating assets (*e.g.*, marketable securities), or by borrowing new funds in the capital market or from the banks. Whether or not—and if so, to what extent—payments will be made in excess of current receipts will depend, of course, mainly on the profit and loss considerations. But it should be pointed out that, even if the majority of corporations were willing, irrespective of costs, to engage in “deficit financing” with a view to maintaining a full pre-depression level of employment despite a substantial and prolonged decline in receipts, they could not succeed without sustained financial help from the government or the banking system. For the combined holdings of cash and marketable securities, though appearing high on the balance sheets of large corporations, usually constitute only a small percentage of the total annual cash disbursements. Moreover, if corporations dumped their security portfolios on the market all within a short span of time, sales would become impossible unless financial authorities strengthened the demand by organized action. Likewise, new borrowing on a large scale would not be feasible at the time of a depression in the absence of a deliberate policy of full support on the part of the authorities.

What typically happens in a depression is that payments are curtailed at more or less the same pace as receipts fall off. At the beginning of the depression contractual obligations carried over from the expansion period may have to be met to such an extent as to necessitate material decreases in liquid assets. But as the depression goes on the volume of payments is usually adjusted pretty well to the shrunken volume of receipts. Most corporations, at least the large ones, remain in a strong liquid position in times of depression. Their big problem is to balance

costs and revenues, not payments and receipts. The fact that costs exceed revenues, while payments and receipts are balanced, means that some costs are incurred without involving cash disbursements in the same accounting period. In the case of manufacturing corporations the biggest single item of cost that permits a postponement of cash outlays is depreciation of fixed equipment. The process of replacement of fixed equipment can, as a rule, be slowed down or even discontinued temporarily without a significant effect on current operations. In times of dwindling business, corporations are able to maintain their other payments to a considerable extent by cutting down their outlays on replacement of fixed assets.

Payments and receipts may remain balanced, while costs exceed revenues, also as a result of underreplacement of inventories. In this case the loss incurred will be mainly represented by the reduction in the amount of inventories (to the extent that reduction does not represent a shift of funds from inventories to some other assets).

Whether or not fixed equipment is replaced, depreciation accruals must, of course, figure as a component of costs. Total costs can be reduced by diminishing the scale of operations, but this will not necessarily entail a reduction in the difference between total costs and total revenue. Assume, for example, that, as a result of a decline in demand, the sales proceeds of a firm decline to such an extent that by selling the same quantity of goods as before it can cover only its variable costs. It is clear that in this case the difference between costs and revenues (the loss) will be the same whether the firm maintains its old scale of production and employs the old number of workers in its plant, or whether it discontinues production altogether and dismisses all its workers. If we assume further that all variable costs involve cash outlays and that the entire revenue consists of cash receipts, then not only the loss but also the cash balance at the end of the period will be practically the same in both situations despite the difference in the volume of payments.

Obviously, corporations are not confronted in actual life with these two alternatives only: either to produce at the old level or to suspend operations entirely. They usually find that they can minimize their losses by fixing the new volume of operations at some point between the pre-depression level and the full suspension. It may well be that for many firms a very drastic reduction in production, and consequently in the flow of payments and employment, is required to cut the loss down by a small percentage only.

A situation in which individual firms maintain the scale of operations and employ the same number of people as before, but in which their fixed equipment is undermaintained, involves a reduction in purchases from the capital goods industries. It has been claimed that from the

point of view of the economy as a whole dissaving, resulting from under-maintenance of assets, means capital consumption *at the expense of current production and employment*.⁸ While it may be possible to conceive of conditions under which the workers dismissed from the capital goods industry are able to find employment promptly in the consumption goods and service industries so that total employment remains undiminished, even though the capital is partially consumed, it must be admitted that *in times of depression* conditions of this kind do not arise and undermaintenance of assets is indeed associated with curtailment of the employment.

Statistical data (unfortunately available in the form of annual totals only) indicate that the amount of business dissaving during the depressions has usually fluctuated from year to year inversely with the amount of employment. It is not difficult to see why this relationship has existed. Business enterprises have endeavored individually to adjust the scale of operations to the expected changes in demand for their respective products. When the demand was expected to fall, operations were curtailed and as this process spread throughout the economy employment and the flow of payments were reduced, which lead to a further decline in demand. As a result, both dissaving and unemployment were greater at each following stage of the depression. At a certain point a combination of factors would bring about a change in the direction of movement of the effective demand. Then the process was reversed: the scale of operations was adjusted upward, employment and the flow of payments were increased, demand was further stimulated, operations were expanded again, etc. Dissaving and unemployment again moved together, both decreasing as the recovery went on.

It would be erroneous, however, to infer from the foregoing that during a depression any action of business enterprises involving an increase in dissaving must necessarily bring about a decrease in employment. It should be clear that if all business enterprises have already adjusted the volume of operations so as to minimize their losses, and if there is no further change in the cost-price relationships, then an expansion of production will involve greater employment and *greater* dissaving. The longer-term consequences will depend upon the number and size of the firms giving additional employment. If many business enterprises make a concerted effort to increase production notwithstanding the immediate financial consequences, one should expect that within a certain length of time the effective demand will rise owing to the increased flow of payments in the economy, and business dissaving will be reduced. Under such conditions, there will be an increase in

⁸ Cf. Don. D. Humphrey, *Am. Econ. Rev.*, Vol. XXVIII, pp. 223-34.

dissaving as an immediate consequence, but a net decrease in dissaving within a somewhat longer period.

III

The question to be discussed next is whether the existence of corporate surpluses as a separate part of the owners' capital affects the ability of corporations to incur dissaving in bad years. Obviously, if a corporation is short of cash the mere fact that there is a large surplus account on its books will not help it to maintain the flow of cash disbursements. On the other hand, if the cash position is strong, surplus may be of importance when decisions concerning the use of available cash resources are made. Furthermore, surplus may be of importance when the volume of operations is decided upon in times of unprofitable business.*

*In analyzing the importance of the surplus account an appropriate comparison is that between two companies equal to each other in all respects except that in one case equity consists predominantly of paid-in capital while in the other case the same amount of equity funds includes a substantial earned surplus. It would be inappropriate to compare two companies with equal paid-in capital but different surpluses.

Comparisons of the latter kind have, however, been made. For instance, Catherine G. Ruggles in her article "Corporate Surpluses, Income and Employment," in the *American Economic Review*, Vol. XXIX, No. 4 (Dec., 1939), pp. 724-33, considers a hypothetical case in which two companies begin operations with equal amounts of capital, but one of them retains regularly part of net earnings while the other distributes net earnings in full. Dr. Ruggles argues that if there is no difference between these companies in the amount of outside financing obtained, then the former one may be expected after a certain period to have a better plant and lower costs and, therefore, to suffer less during business depressions. This may readily be granted, but it should be clear that the difference in plant in this case is accounted for by the inequality of the capital invested by the two firms at the end of the period and not by the different structure of equity.

It is true that in the existing economic system the younger and the smaller companies often find it difficult to obtain funds from outside sources and that, therefore, in many cases the firms which are able to retain more of their earnings are in a position to grow more rapidly, to acquire capital equipment of higher quality and to give a better account of themselves both during cyclical expansions and cyclical contractions than the firms whose retentions are on a smaller scale. However, in order to oppose on this ground the policy of retention in general, one would have to argue that if retentions were made impossible for all corporations the vulnerability of the economy to cyclical contractions would be greater because of a lower rate of financial growth and poorer quality of capital equipment among corporations in general, and among the younger and the smaller ones, in particular. The writer is unaware of any studies supporting a proposition such as this.

A word may be added here concerning the contention that corporations with strong surplus accounts enjoy a better credit standing, and that it is easier for them to borrow new funds from credit institutions. Here again we must clearly distinguish the case in which a comparison is made between two companies with equal total equities but unequal surpluses from the case in which a comparison is made between two companies whose capital stocks are equal but total equity funds are not, because of a difference in surpluses.

If a credit institution considers applications for loans of two companies similar in all respects (size, profitability, equity to debt ratio, etc.) except that in the case of one company paid-in capital is a smaller percentage and earned surplus a larger percentage of total equity than in the case of the other company, it is hard to see why the former should be given preference just because of this difference. On the other hand, if the former

The presence of a previously accumulated earned surplus is, as a rule, a necessary legal condition for the payment of dividends in profitless years. The payment of dividends in such years may or may not tend to increase the flow of payments in the economy, depending upon the source from which the funds paid out are obtained. If dividends are paid out of previously accumulated cash, which the company would continue to hold if dividends were passed, a favorable effect on the flow of payments in the economy may be expected. If in order to pay dividends the company resorts to sales of securities out of their portfolios, the effect is apt to be different in various cases. In the case where securities are sold to individuals (or firms) who would otherwise hoard the money (or part of it), or if they are sold to banks and additional money is thereby created, one may expect a favorable effect. On the other hand, in the case of sales to the parties who would have spent the money on other goods or services had these securities not been offered to them, the effect may be either favorable or adverse, or there may be no significant effect at all, depending upon a number of circumstances.¹⁰

If dividends are paid out of current sales proceeds, as a result of which payments financing current operations are curtailed and some assets remain undermaintained, then the effect will more likely than not be unfavorable, because of the lower propensity to consume among the stockholders as compared with the wage earners.

During the depressions of the past decades, large corporations have tended to accumulate large amounts of cash not required for current operations. Their operating assets have been reduced but the liquidity position has, as a rule, been strengthened. It seems, therefore, that the ability of large corporations to distribute dividends in profitless years has not been maintained at the expense of other payments, and that in the absence of dividend distributions the process of accumulation of inactive cash would have been intensified and the flow of payments would have shown a greater decrease.¹¹

Apart from the payment of dividends, the presence of earned surplus on the books of corporations may make it easier for them to maintain a larger volume of payments by continuing production despite an

company had the same paid-in capital but a larger surplus than the latter one (in which case it would either have a greater amount of total capital employed or a higher equity to debt ratio), it would, *ceteris paribus*, clearly be a preferable customer.

¹⁰ As pointed out earlier, one must also take into consideration the depressing effect on security prices that may be produced by unloading securities on the market by a large number of firms simultaneously.

¹¹ Part of the cash distributed as dividends in times of depression may have been hoarded by the stockholders. But the other—and doubtless the major—part must have been spent on goods and services, contributing to the flow of payments in the system.

excess of costs over revenues. In some instances corporations may find it preferable—from the point of view of long-run objectives—to engage in operations whose immediate financial results do not allow covering even the variable costs. Such may be the situation when they expect an early revival of business and are eager to remain in the market and to preserve the goodwill of their customers;¹² or when they deem it essential to establish and maintain a record of stable volume of business, which may be of importance in connection with contemplated new flotations of securities after the depression is over. The management will usually be less hesitant to pursue a policy conforming to long-run objectives of this kind if there is a strong surplus against which temporary deficits may be charged. This is because both the owners and the creditors of the enterprise are less likely to be worried by this course of action as long as it is evident from the balance sheet that the deficit currently incurred constitutes only a fraction of the earnings retained previously.

To sum up, it appears that the policy of retention of earnings and of building up large surplus accounts in periods of cyclical expansion has led to somewhat higher cash disbursements and consequently somewhat larger volume of payments and of employment in periods of cyclical contraction; that is, somewhat larger than it would have been if the retention of earnings had not been practiced. It would hardly be possible to estimate, even roughly, on the basis of the available data the amount of additional disbursements accounted for by this policy in any of the recent depressions. The total amount of business dissaving incurred and charged to the surplus account certainly gives no indication in this respect. There are several considerations, however, which suggest that such additional disbursements have not been of major importance in the past. In the first place, cash dividends were curtailed drastically during the major depression by almost all corporations even in the strongest and, in the long-run, the most profitable sector. In the second place, the tenet that losses should be minimized in any period of activities is so widely accepted in the business community that it would not seem realistic to attach more than moderate importance to the operations that may have been conducted despite the excess of variable costs over revenues. In the third place, as far as the objective of remaining in the market despite temporary losses is concerned, this may be attained to a considerable extent by selling out the existing inventories rather than by keeping up current production. Corporate financial statements show that inventories have, as a rule, been subject to a material contraction in the periods of depression.

¹² This has been pointed out by Catherine G. Ruggles in her article, "Corporate Surpluses, Income and Employment," *Am. Econ. Rev.*, Vol. XXIX, pp. 724-33.

Some further considerations suggest that corporations in the aggregate have been in a position to make considerably larger cash disbursements during the depressions than they have actually made, without imperiling their equity or working capital position and without having to resort to additional borrowing or sales of marketable securities. As mentioned above, large amounts of inactive cash remained at the disposal of the corporate economy throughout the periods of slack business. It is also known that most of the large companies came out of such periods with the surplus account still showing a very substantial credit balance.

The liquidity position of the corporate economy is at present quite strong. No accurate forecasting is possible as to what the liquidity position will be when the period of post-war reconversion is over; but the opinion is widespread that it will remain favorable. If that opinion is correct, corporations will have considerable power to resist a contraction of the flow of payments in the economy, when such a tendency sets in. It would, of course, be far too optimistic to expect that this factor alone can prevent the development of a major depression. No private corporation, however strong its surplus may be, can be expected to disburse the bulk of its liquid resources for the benefit of the economy as a whole, without weighing the sacrifice made against the chances for a revival in its own individual business in the not too far distant future. Moreover, even if all corporations were prepared to make such disbursements to the utmost of their capacity, the amounts that could thus be injected into circulation would not be too great relative to the total flow of payments in the economic system.

However, if the policy of building up strong surpluses is continued and further encouraged, and if an attitude is cultivated toward surpluses as the reserves to be used for stabilization purposes—not only stabilization of dividends but also that of productive activity—then the corporate managements will in all probability show greater willingness to make disbursements under conditions where the returns are not so direct and, therefore, less calculable or where a stronger degree of venture is present. If such an attitude develops, corporate dissaving is likely to become more significant as a factor contributing to the mitigation of cyclical fluctuations than has been the case in the past.

IV

It remains to consider whether financial interests of the owners of equity securities are reconcilable with the policy of retention of earnings and, if so, whether they permit the development of a more favorable attitude toward the use of corporate surpluses for stabilization purposes.

The literature on corporation finance has often emphasized that the stockholders are the owners of the entire corporate net income and that the retention of this income, or of a part thereof, by the enterprise deprives stockholders of the right to decide for themselves as to the best disposition of the amounts concerned. Given a chance to exercise their own judgment, they might prefer to spend these amounts, wholly or partially, on consumption; and even if they wished to invest them in full, they might be able to find opportunities more attractive than reinvestment in the same company. Such considerations have led some writers to the conclusion that retentions on a large scale are not in the stockholders' interest. Others have expressed the opinion that, while retentions are justifiable under certain conditions, the freedom of the directors to employ these funds in any manner they see fit should be restricted; if earnings are retained as a safeguard against possible contingencies, they should be clearly designated as reserves; if they are retained for expansion purposes, stock dividends should be paid out to make it clear both to the management and the stockholders that these funds must be subject to the same requirements in respect to safety and return as the paid-in equity funds.¹³

While it is obviously true that from a legal standpoint stockholders are the owners of the entire net income, justification for insistence on complete similarity, from an economic standpoint, between their claims to the retained and the distributed parts of the net income may be questioned. Net income of a corporation is a return on the equity capital invested plus a reward of entrepreneurial nature. The entrepreneurial income is usually considered as a reward for the function of organizing and managing the business and for the assumption of risk, some authors emphasizing the managerial and others the risk-bearing part of the entrepreneurial activities. The question of who is the entrepreneur in the corporate enterprise is a controversial one: Some have argued that the entrepreneurial function is performed by the group exercising active control and management of the corporation; others have claimed that the stockholders—even those who remain entirely passive—are the entrepreneurs inasmuch as they perform the function of ultimate responsibility, uncertainty bearing and the making of ultimate decision (*i.e.*, the decisions pertaining to the existence of the company and the keeping of the directors in office); recently a view has been advanced that it is the firm itself, or more specifically, its decision-making organization that must be considered the entrepreneur.¹⁴

¹³ Cf., B. Graham and D. L. Dodd, *Security Analysis* (1940), pp. 373-400.

¹⁴ The different views referred to above, are presented, respectively, in R. A. Gordon's essay "Enterprise, Profits and the Modern Corporation," in *Explorations in Economics*;

It is not necessary for the purpose of this paper to adhere to any one of these views to the exclusion of the others. The important point that must be stressed here is that there is a substantial difference between the position of the great majority of modern corporate stockholders on the one hand and that of the proprietary capitalist-managers of non-corporate enterprises, typical of the earlier phase of capitalism, on the other. The writer is inclined to agree with the view that the essence of the entrepreneurial function lies in the active decision-making, in business leadership, rather than in the passive responsibility-taking and that, therefore, the typical position of a stockholder is not that of an entrepreneur. However, even if one holds the opposite view one must concede that the stockholder has lost an important part of the function characteristically performed by the capitalist-manager, *viz.*, the continuous active control and leadership. Whether or not one thinks that the functions retained by the stockholder justify considering him the entrepreneur, one can hardly be in substantial disagreement with Berle and Means's argument concerning the dissolution in the corporate economy of "the old atom of ownership" into its component parts: "control" and "beneficial ownership." In discussing corporate profits these authors came to the conclusion that since the stockholders have retained only the "beneficial ownership" component, while "control" has been turned over by them to the directors and officers, "the traditional logic of profits, when thus applied to the modern corporations, would indicate that if profits must be distributed either to the owners or to the control, only a fair return to capital should be distributed to the 'owners'; while the remainder should go to the control as an inducement to the most efficient ultimate management."¹⁵

While the actual practices of American corporations have differed from what Berle and Means considered a logical distribution of profits, statistical information suggests that the division of net earnings into the retained part and the dividends has been related to the division of functions between the groups representing "beneficial ownership" and "control." Cash dividends on common stocks of American corporations have on the average and in the long run represented a yield considerably higher than that on corporate bonds. Thus, according to the findings of the Cowles Commission, the yield, or ratio of cash dividend payments to stock prices, averaged 5.0 per cent a year for the all-stock

in B. W. Lewis's article "The Corporate Entrepreneur" in the *Quarterly Journal of Economics*, Vol. LII, No. 2 (May, 1937), pp. 535-44; and in J. H. Strauss's article "The Entrepreneur: The Firm" in the *Journal of Political Economy*, Vol. LII, No. 2 (June, 1944), pp. 112-27.

¹⁵ A. A. Berle and G. C. Means, *The Modern Corporation and Private Property* (1932), p. 244.

index from 1870 to 1938. During the same period the average return from high grade bonds was about 4.2 per cent.¹⁶ These facts indicate that the owners of common stocks have been receiving in the form of cash dividends not only a basic return on the capital invested (pure interest), but also on appreciable reward for the risks involved in the position of the holders of junior securities. The retained portion of profits has not in practice become part of the income of the control group. Legal title to retained earnings has remained with the stockholders, and the appreciation of stock prices resulting from the accumulation of surpluses has provided an additional reward to the stockholders¹⁷ for the risks assumed by them and for their "ultimate" responsibility. Yet, the managements have derived definite advantages from the policy of retention of earnings. An accumulation of internal funds has provided them with new financial resources without the necessity of going through the cumbersome procedures involved in obtaining the new external funds; these resources have been received without incurring any costs—initial or current—and without any stipulations as to the purposes for which they should be employed; furthermore, in the event of losses owing to faulty investment or efforts to protect the company's goodwill or markets in a period of business depression, a milder unfavorable reaction among creditors and stockholders could be expected as long as the retained and not the paid-in funds were shrinking.¹⁸

In view of these advantages for the management on the one hand, and the disadvantages for the stockholders, resulting from the loss of free choice as to the employment of retained earnings, on the other, it must be admitted that there has been some shift of benefits from the beneficial ownership to the control group. And it appears reasonable to consider this shift as an adjustment of a sort to the division of functions in the corporate enterprise between these two groups. From this point of view the policy of retention, as practiced by a large number of American corporations, has been more in keeping with the relationships within corporate enterprises than the policy of paying out the

¹⁶ *Common Stock Indexes*, by A. Cowles 3rd and Associates (2nd ed., 1939), p. 41.

¹⁷ It is not suggested here that there has been an exact mathematical relationship between the growth of surpluses and the increase in stock prices.

¹⁸ Professor Buchanan has pointed out that a professional management group may derive considerable "psychic" income from controlling and operating a larger enterprise, quite apart from any increase in their salaries that may result from the expansion of the business. (See Norman S. Buchanan, "Theory and Practice in Dividend Distribution," *Quart. Jour. Econ.*, Vol. LIII, No. 4 [Nov., 1938], pp. 64-85.)

It seems that retention of earnings may create such "psychic" income for the management not only by increasing financial resources of the enterprise but also by making new funds available without exerting the same pressure on the management in respect of the return or safety of investment, as is involved in external financing.

entire net income to the stockholders would have been. Nor would it have been a step in the right direction if the problems of management had been further complicated by the requirement that stock dividends be declared each time a decision to retain earnings was made.

The foregoing discussion points to the conclusion that, as long as the dividends paid over a period of years compare favorably with the return on senior securities, the policy of retention should not be condemned as unfair to the stockholders only because it deprives them of the possibility of making investment (or consumption) decisions in respect to the amounts retained. Would it, however, be unfair to the holders of equity securities if corporations made it a practice to maintain a larger volume of payments and charge larger amounts to surpluses during business contractions, as a measure conducive to bringing about a revival? Such a practice might result in a greater reduction in surpluses and, consequently, a greater loss of earning power at the end of a contraction period.¹⁹ But even in this case, it seems, the policy should not be criticized if after such a period the enterprise is still able to bring a satisfactory return on the paid-in equity funds. Doubtless, one cannot expect private enterprises to be able or willing to "spend away" their entire surpluses each time a serious contraction develops. Yet, there appears to be room for a greater effort aimed at maintaining the flow of payments, without doing injustice to the stockholders. And, of course, to the extent that such a practice would tend to make contractions shorter and milder, the stockholders, as well as all other members of the community, would benefit.

¹⁹ But it might also bring about just the opposite result: the initial additional payments charged to surplus might help shorten the contraction period to such an extent that the depletion of surpluses would stop while they were still relatively high.

THE FEDERAL TRADE COMMISSION AND "UNFAIR COMPETITION" IN FOREIGN TRADE

By RICHARD S. LANDRY*

Although the phrase, "unfair methods of competition," is ambiguous, a definite legal interpretation of it can be distinguished and at least one attempt has been made to characterize a definite economic meaning. The legal construction, as exemplified in particular by court explanation of the phraseology of the Federal Trade Commission act, conforms to the old, common-law meaning of fraud and misrepresentation,¹ and is liberally sprinkled with borrowings from the law of torts and property.² Also, much, if not most, of the energies of the Commission itself have been directed—on the domestic front—toward the elimination of "unfair competition" that tends to harm the competitive position (*i.e.*, damage the property rights) of the individual seller.

What has been labeled as "the purely economic approach to the monopoly problem" (covering a sizeable portion of the field of "unfair competition") is probably best illustrated by the prosecutions of our Antitrust Division during the Thurman Arnold era. Marked by an almost religious belief in the attainability of perfect competition and in the disastrous, broad results of our fall from grace, this era may well explain why the judicial Rule of Reason has been equated with "the purely economic approach" mentioned above,³ since it is sug-

* The author is assistant professor of economics at Beloit College. He wishes to thank Mr. Otis B. Johnson, secretary of the Federal Trade Commission, for information courteously furnished, and Professor Jacob Viner for reading the manuscript.

¹ Cf. W. H. S. Stevens for a prediction that this would be the case, despite the existing procedure in courts of equity for enjoining such methods of unfair competition: *Unfair Competition* (Chicago, Univ. of Chicago Press, 1917), p. 3.

For reference to the ensuing period, see M. W. Watkins, *Public Regulation of Competitive Practices in Business Enterprises* (New York, Nat. Industrial Conf. Board, January, 1940), p. 52.

² R. E. Sadtler, "Unfair Competition: Past and Present Trends," *Tennessee Law Review*, Vol. 16 (1940), p. 401.

³ By R. Callmann, "Patent License Agreements Between Competitors and the Monopoly Issue," *Georgetown Law Journal*, Vol. 28 (February, 1940), p. 877.

P. M. Sweezy, in reviewing Mr. Arnold's *The Bottlenecks of Business*, described the latter's diagnosis of our economic ills in the following fashion: "Depression and unemployment in the United States, the rise of National Socialism in Germany, Britain's unpreparedness for war, and the fall of France are all alike traceable to a common source, the breakdown (at some unspecified time in the past) of the competitive pricing mechanism." *Harvard Law Review*, Vol. 54 (January, 1941), p. 531.

gested that the common law protecting the freedom of the individual "was infused into the law designed to protect a principle, the principle of free competition."⁴ Another writer, in distinguishing what he has termed "economically unfair methods of competition" from the usual legal meaning in terms of fraud, etc., has made these unfair methods coextensive with the conduct of "the most highly monopolistic organizations."⁵ It appears to be a safe statement, then, that if there is a definite economic meaning of "unfair competition," it is one involving the economic effects of monopolistic actions exclusively.⁶

In addition to these analytical differences between the legal and economic conceptions of the nature of "unfair competition," the Federal Trade Commission and the Antitrust Division are presumed to stand watch over different markets. Supposedly, the interest of the former has been riveted on the home market, while the latter, within the past five years, has devoted most of its time to the international market. Inordinate attention has been given by the popular press to this recent extension of our antitrust program beyond our national boundaries, in so far as it obscures the legal and historical preëminence of the Federal Trade Commission in the field of unfair competition in foreign trade.

It is the purpose of this paper to place the problem in its proper perspective by sketching the statutory importance of the Commission in this work, the character of its accomplishments (as well as of its shortcomings), and the real (as against the nominal) basis for distinguishing between a legal and an economic approach to the principal issue.

From the viewpoint of legislative enactment, the Federal Trade Commission is the one federal agency having primary responsibility for policing acts of "unfair competition" committed by American firms in connection with foreign commerce.⁷ The Trade Commission administers

⁴ R. Callmann, *loc. cit.*

⁵ W. H. S. Stevens, *op. cit.*, p. 8.

⁶ This is also the opinion of J. P. Miller in whose volume, *Unfair Competition* ([Harvard Univ. Press, 1941], p. 402), appears the statement, "The economist has a different view of competition from that of free competition which dominates public policy. Where the legal distinction is between free competition and restraint of trade and uses as its criteria business methods or policies, the economic distinction is between degrees of competition (pure, perfect, imperfect, monopolistic, etc.) and types of competition (price, service, product, advertising, etc.) based primarily upon a consideration of conditions and results but with an increasing concern with policies."

⁷ Section 704 of the act of September 8, 1916 (39 *Statutes at Large*, p. 798) in part authorizes the Tariff Commission to investigate "conditions, causes and effects relating to competition of foreign industries with those of the United States, including dumping. . . ." (U. S. Tariff Commission, *Information Concerning Dumping and Unfair Foreign Competition in the United States* [Washington, 1919], "Introduction.") The Tariff act of 1930 requires the Tariff Commission to determine the facts relating to foreign discriminatory treatment of American exports and to report these findings to the President, who is em-

not only its own act (U.S.C., Title 15, Sec. 41, 1914), but also the Sherman act of 1890 (Sections 1, 3, and 6 c), the Wilson Tariff of 1894 (Section 73), the Clayton act of 1914 (Sections 2, 3, 7, and 8), the Webb Export act of 1918, and the Fordney-McCumber Tariff act of 1922 (Section 316).⁸ From the viewpoint of frequency of prosecutions of all types in this field, as well, the Trade Commission undoubtedly ranks first, despite the large number of prosecutions undertaken by the Antitrust Division under the leadership of Mr. Arnold. Verification of this statement is to be found in the results of a compilation made by the present writer of orders and complaints issued by the Commission in the period 1915-1942, inclusive. More than a hundred cases were discovered that concerned "unfair competition" in foreign trade in the shape of the common-law concept of fraud, misrepresentation, and passing-off. Almost a dozen more were found that involved the economic meaning of "unfair competition" in foreign trade in terms of control over prices and output. It is in this second group that the answers to the questions concerning the accomplishments of the Commission and

to them by as much as 50 per cent ad valorem: see 19 U.S.C. 1338 (1940 ed.). The Treasury Department holds jurisdiction over investigations into charges of dumping of foreign products in this country; and, upon recommendation of the Secretary of the Treasury, the Appraiser of Customs can levy a special dumping duty to raise the price of the import to that of the foreign market value plus freight and insurance: see 19 U.S.C. Sec. 160 and J. L. Brown, "Remedies Against Unfair Competition Emanating from Abroad," *Comparative Law Series* (of the Bureau of Foreign and Domestic Commerce), No. 605, (May, 1937), p. 3. For a concise discussion of the historical relationships among these acts, see J. Viner, *Dumping: A Problem in International Trade* (Chicago, 1923), pp. 239-57.

* As late as 1924 there had been no judicial decisions interpreting Section 73 of the Wilson act, as amended by an act of February 12, 1913; but the Attorney General rendered an opinion on the question with regard to an agreement entered into by an American firm and the owners of potash mines in a foreign country. This agreement was considered to be a violation of the statute: see *Opinions of the Attorney General*, Vol. 31, p. 545, cited in Boris M. Komar, "National Control of Unfair Competition in International Commerce," *International Law Association Report*, Vol. 33 (1924), p. 421. In the case of *American Banana Co. v. United Fruit Co.*, 213 U.S. 347 (1909), the Supreme Court made no reference to the provisions of the Wilson act, although the decision was rendered after the passage of the act, and "it would appear to the layman that the alleged conspiracy of the United Fruit Company was unlawful under this Act, regardless of where the specific acts which executed the conspiracy were performed, if the conspiracy itself occurred in the United States": Viner, *op. cit.*, p. 241, note. The Supreme Court did, however, in the case of *U.S. v. Sisal Sales Corporation*, 274 U.S. 268 (1926) declare that, because a combination in restraint of trade had been entered into by parties within the United States and made effective by acts done therein (contrary to the facts in the preceding case), the acts engaged in were illegal under Section 73 of the Wilson act.

So far as Section 316 of the Fordney-McCumber Tariff act is concerned, the Court of Customs Appeals recently upheld the jurisdiction of the Tariff Commission as to trademark infringement, but denied that its jurisdiction extended to patent infringement. The case in point—*Frischer & Co. v. Bakelite Corp.*, 39 F. (2d), 247, culminated in the denial by the Supreme Court of a writ of *certiorari* to the Bakelite Corporation, which alleged that Frischer and Company, a domestic importer, had infringed their patents and trademarks. Cf. "The President's Power to Exclude Articles When the Importer has Practiced Unfair Competition," *Yale Law Journal*, Vol. 40 (1930), pp. 108-09. I am indebted to Mr. Dudley A. Zinke for this last reference.

the sources of a meaningful distinction between the legal and economic analysis of "unfair competition" lie.

Of this small number of cases one⁹ in particular stands out, because a vigorous dissent to the majority's dismissal of the complaint without prejudice marks it as being unique. The dissenting member, Commissioner Thompson, suggested that certain important facts had apparently escaped the notice of the other commissioners while the six thousand pages of testimony and twelve hundred exhibits were being presented at the hearings. In the first place, the respondent companies constituted 85 per cent of the available capacity in certain types of pine and fir and their products; and control of such a preponderance of capacity in any industry not a natural monopoly seemed to be a necessary condition for setting up an artificial monopoly. Secondly, "a preponderance of evidence" showed that the respondent companies employed an open-price and a basing-point system in their domestic and foreign trade.¹⁰ Commissioner Thompson did not attempt an economic analysis of the effects of either of these practices, confining himself to the remark that the use of a production "barometer" and sales reports was similar to methods declared unlawful in the first Maple Flooring case¹¹ and that the open-price plan was "practically identical" with the open-competition plan found illegal by the Supreme Court in *American Column and Lumber Co. v. United States*.¹² Especially noteworthy throughout the dissent, in fact, is the stress laid upon the element of conspiracy in the case. Commissioner Thompson makes much of the fact that the respondents "adhered to prices agreed upon" in their domestic trade and that they "conspired to hinder and obstruct the operation of competitive mills" in their foreign business. This latter was effected by means of (a) bringing competitive mills into the association, (b) discouraging them through price wars, and (c) attempting to curtail their steamship facilities.

Had the other commissioners seen eye to eye with Commissioner Thompson in this case, the courts would doubtless have been called upon to make judgment; and, given these clean-cut details concerning open collusion, there can be no doubt that the acts in question would

⁹ *F.T.C. v. Douglas Fir Exploitation and Export Co., Inc., et al.*, F.T.C., *Report for the Fiscal Year Ended June 30, 1925*, p. 93, Docket No. 880. As a sequel to this case, see that of *Pacific Forest Industries* (January 27, 1940). According to S. Schwarz, *Research in International Economics by Federal Agencies* (New York, Columbia Univ. Press, 1941), p. 102, n., this second case represents the first "recommendations for readjustment" without formal complaint ever issued by the Commission.

¹⁰ The Supreme Court found in the case of *Maple Flooring Manufacturers Ass'n et al.*, 268 U.S. 563, that the publication of average costs and the use of a freight rate book, listing rates from Cadillac, Michigan, could not be taken as evidence of an agreement for fixing and maintaining prices: A. R. Burns, *The Decline of Competition* (New York, McGraw-Hill, 1936), p. 291.

¹¹ Dist. Court of U.S. for Western Dist. of Mich., S.D., December 19, 1923.

¹² 257 U.S. 377 (1921).

have been stamped "illegal," because the courts have usually assumed that any purposive check of free competition is bad in itself.¹³ Unhappily, the logic involved has been warped to the conclusion that, since the presence of the element of collusion signifies the presence of imperfect competition (in a general sense), therefore the absence of this same element also connotes the absence of imperfections in the competitive process.¹⁴ As the discussion proceeds, the large extent to which this single criterion has been relied upon by the Trade Commission in the group of cases under review will become even clearer than the nature of Commissioner Thompson's dissent suggests.

Taken chronologically, the first complaint of any importance issued by the Commission against firms engaged in foreign commerce was that involved in the case of *F.T.C. v U.S. Gold Leaf Manufacturers' Association et al.*¹⁵ In this instance the charge of a *conspiracy* to fix and maintain prices, despite meagre results, was considered to be well enough founded to warrant a Cease and Desist order. Probably the most interesting feature of this order is the complete lack of reference to the plan to dump gold leaf abroad, despite its inclusion in the "Findings as to the Facts." A subsequent case—the matter of *Fairfax Bush et al.*,¹⁶ importers of ferromanganese from British principals during the First World War—also embraced the issue of dumping, but more overtly. The American importers were charged with dumping their product in this country, presumably to stifle the incipient ferromanganese industry, which had been vitalized by the British embargo on the export of that product. The record in this case states that satisfactory proof of the allegations was not made. Here, again, however, the significant fact is that a combination in restraint of trade was concerned.

A third case was carried to the point of the issuance of a Cease and Desist order to Waldes and Company, Inc.,¹⁷ a concern in Prague which manufactured snap fasteners and started to export to the United States in 1911, succeeding in supplying 80 per cent of our annual consumption when the World War cut off the market, after which time it migrated to this country. This is the only case in the entire group not entailing the conspiracy or collusion charge, since Waldes was the sole respondent in the proceeding. The unscrupulous methods resorted to by the former Austrian firm in an effort to regain its pre-war supremacy in the American market were under attack, and were prohibited by the Trade Commission in two instances out of three.

¹³ Cf. J. P. Miller, *op. cit.*, p. 398.

¹⁴ Cf. M. W. Watkins, "Present Position and Prospects of Antitrust Policy," *Am. Econ. Rev.*, Vol. XXXII, No. 1 (Mar., 1942), suppl., pp. 109-10.

¹⁵ Federal Trade Commission, *Decisions*, Vol. 1, p. 173. Docket No. 195 (1918). Cited by J. Viner, *op. cit.*, p. 85.

¹⁶ F.T.C., *Annual Report* (1922), p. 145. Docket No. 580.

¹⁷ F.T.C., *Decisions*, Vol. 8 (1925), p. 305. Docket No. 947.

Two other early, and more important, cases were those of the Eastman Kodak Company¹⁸ in its attempt to establish a semi-monopoly in the sale of positive movie film and the General Electric case,¹⁹ in which G.E. and affiliated concerns were charged with *combining* to create a monopoly in the manufacture, purchase, and sale of radio apparatus used in transoceanic radio transmission. The Eastman Kodak case is important from three viewpoints. First, it also represents a conspiracy with other respondents, members of the Allied Film Laboratories, Inc. Second, it constitutes the nearest approach to complete national monopoly control of a product that the file of Trade Commission cases on unfair competition in foreign trade offers. Third, the affirmation of the decision in this case by the Supreme Court in 1927 established for the first time that the jurisdiction of the Commission extended to our foreign commerce.²⁰ The G.E. case is noteworthy, because it involved patent tie-ups among the respondent companies and was dismissed, supposedly²¹ because our patent laws seemed to sanction the conduct of the respondents.

A lag of six years ensued in the Trade Commission's prosecutions, until 1934, when it issued a Cease and Desist order to the Lindsay Light Company of Chicago,²² a corporation engaged in the importation from India of monazite sand, from which it manufactured certain chemicals that entered into foreign trade. The Chicago firm had entered into *agreements* with several large national producers abroad in order to divide the world market in the sale of thorium and thorium nitrate (used in the manufacture of gas mantles). For this reason alone the case is significant, because it provides a link between the more commonplace cases concerning multilateral price control and the general problem of international economic agreements of the type characteristically attacked by our Antitrust Division.

Latterly, three additional cases have been added to the Commission's dossier. All three have concerned *agreements* to restrict the sales of certain products: in one instance between the Hills Brothers Company, importer of dates into this country from Iran and Iraq, and two British concerns;²³ in another case between American companies producing lecithin, a chemical having numerous industrial uses, and German and Danish corporations;²⁴ and in a third between the Chilean

¹⁸ F.T.C., *Decisions*, Vol. 7 (1924), p. 434. Docket No. 977. Affirmed in 274 U.S. 619.

¹⁹ F.T.C., *Annual Report* (1929), p. 183. Docket No. 1115.

²⁰ Commerce Clearing House, *Trade Regulation Service*, Vol. 105, par. 505.222.

²¹ The Trade Commission does not always report its reasons for dismissal.

²² F.T.C., *Decisions*, Vol. 18 (1935), p. 240. Docket No. 2142.

²³ *F.T.C. v. Hills Brothers Co., et al.*, F.T.C. *Decisions*, Vol. 31, p. 931. Docket No. 4105. (Order, September 19, 1940.)

²⁴ *F.T.C. v. American Lecithin Co., Inc., et al.*, C.C.H., *Trade Regulation Service*, Vol. 106 (1941), p. 17,871. Docket No. 4173.

Nitrate Company, an importer, and the subsidiary of a domestic producer of basic nitrate of soda.²⁵ In each case the Commission issued a Cease and Desist order to the American companies involved.

If it is correct to restrict the legal meaning of "unfair competition" to cover only instances of collusion regarding price and output, as seen in the above group of cases,²⁶ no difference exists between this approach, taken by the Trade Commission, and the so-called "economic" approach adopted by the Antitrust Division, which can, therefore, be considered a purely "nominal" economic meaning of "unfair competition." As Professor Miller has stated, "The legal concept which has dominated public policy in this country has been that of free competition";²⁷ and this idea, plus the *non sequitur* mentioned on pages 578 and 579, above, characterize the approach of both agencies to the problem of unfair competition and/or monopoly. There is some distinction to be made, it is true, between the programs of the Trade Commission and the Antitrust Division in this field: the question of public interest has played a heavier rôle in the prosecutions of the latter during the war period, just as it is likewise true that the magnitude of its work has been greater in the same period of time. But each of these facts is attributable to wartime conditions—the ease of identifying the "public interest"²⁸ under such conditions, and the necessity during the early phase of the war of maximizing national output of such critical goods as machine tools, aluminum, magnesium, steel, synthetic rubber, optical instruments, firebrick, and pharmaceutical supplies, all the subjects of antitrust proceedings.

Thus, an "economic" criterion in the real sense of the application of economic analysis to market structures of various kinds, such as those underpinning the basing-point and open-price systems, the practice of dumping,²⁹ and other continued manifestations of large industrial power or peculiarities of an industry, is still lacking in the field of "unfair competition," both foreign and domestic. True, the Trade Commission

²⁵ *F.T.C. v. Chilean Nitrate Sales Corp. and the Barrett Company*, *ibid.*, p. 17,589. Docket No. 3764. (Complaint, April 15, 1939.)

²⁶ An eleventh case might be mentioned: *F.T.C. v. Associated Lobster Dealers of Massachusetts, et al.*, *F.T.C., Decisions*, Vol. 21, p. 752. Docket No. 2587. Inadequately reported, this case was closed on January 3, 1936.

²⁷ *Op. cit.*, *supra*, p. 397.

²⁸ Until the amendments to its act in 1938 the Commission consistently failed to raise any serious question of the public interest, as opposed to the narrow interest of competitors directly involved, when monopoly or restraint of trade were at issue. The exact opposite was true in its proceedings covering misrepresentation, etc.: J. P. Miller, *op. cit.*, p. 91.

²⁹ Cf. A. Smithies, "Aspects of the Basing-Point System," *Am. Econ. Rev.*, Vol. XXXII, No. 4 (Dec., 1942), pp. 705-26; J. M. Clark, "Imperfect Competition Theory and Basing-Point Problems," *Am. Econ. Rev.*, Vol. XXXIII, No. 2 (June, 1943), pp. 283-300; L. Lyon and V. Abramson, *The Economics of Open Price Systems* (Washington, Brookings Inst., 1936); J. Viner, *op. cit.*

is hampered³⁰ in its endeavors to apply such analysis by the extreme flexibility of the definition of "unfair competition" to be found in its own act, although at least one past-chairman regards this as a beneficial aspect of the law.³¹ It is true, also, that the amendments to its act, made in 1938, especially the change in Section 5 (a),³² sponsored by the Commission, indicate an active desire to include consumer interest in general within the purview of its labors.³³ Nevertheless, two major shortcomings have persisted in the work of the Commission within the sphere of foreign trade.

The first of these is partly procedural and partly structural in nature: the Economic Division has concentrated its attention upon domestic business, leaving to an inadequately staffed and poorly financed Export Trade Section the impossible task of suitably investigating trade conditions in and with foreign countries, as stipulated in Section 6 (h) of the Federal Trade Commission act.³⁴

The second shortcoming is one of policy entirely. It consists in the paternalistic attitude adopted by the Commission toward export associations formed under the provisions of the Webb act. In fact, the Commission was an important instrument in gaining the passage of this legislation, since it reported to Congress in 1916³⁵ that foreign nations, because of superior facilities and more effective organization, permissible under their laws, held an advantage over this country in the world market. In the Commission's opinion, fear of the Sherman law inhibited American exporters from developing equally efficient organizations.³⁶ Furthermore, once the act had been passed, the Commission made three statements, significant in the light of its initial interest in fostering export associations in the United States: (1) Under the settled policy of the Sherman act, it declared, "an incidental or inconsequential effect upon domestic prices," due to the export activity of an export association, might not be unlawful for the reason that the statute might otherwise be nullified; (2) an American export association might coöperate with a foreign corporation "for the sole purpose of operating in foreign markets," just so long as the effect of such an arrangement was not prejudicial to economic conditions within the United States; (3) "an association [might] engage in allotting export orders among its members and in fixing the prices at which the individual members [might] sell in export trade," provided that the con-

³⁰ Cf. J. P. Miller, *op. cit.*, pp. 87-88.

³¹ See R. E. Freer, "Some Concepts of Unfair Competition at Home and Abroad," *Trade Mark Reporter*, Vol. 31 (April, 1941), p. 51.

³² In the Wheeler-Lea Act, Public Law No. 447, 75th Cong., 3rd sess.

³³ J. P. Miller, *op. cit.*, p. 101.

³⁴ S. Schwartz, *op. cit.*, p. 106.

³⁵ Cf. *Coöperation in American Export Trade*. S.D. No. 426, 64th Cong., 1st sess. (May 2, 1916).

³⁶ B. S. Kirsh, *Trade Associations* (New York, Central Book Company, 1928), p. 161.

duct was not in restraint of trade, meaning *domestic* trade.³⁷ Not only do these statements seem to suggest that the major interest of the Trade Commission in foreign trade has been as a means of fostering American exports, regardless of the economic consequences in the outside world and, indirectly, in the United States³⁸ but they also harmonize with a provision of the Webb act that has been termed "unique in the field of trade regulation."³⁹ This provision (Section 4), extended the powers of the Commission under its own act (of 1914 and 1925) to include investigation and suppression of "unfair" methods of competition resorted to by exporters against competitors in the same trade and of the same nationality, even though the acts in question should occur beyond the territorial jurisdiction of the United States.⁴⁰ This concern for the individual exporter seems to be a projection into the international market of the Commission's solicitude for the individual competitor at home.⁴¹

Reverting, finally, to the question of the sufficiency of the criterion used by the Trade Commission in dealing with "unfair competition" in the world market: the inadequacy of a yardstick fashioned out of the idea of collusion or conspiracy in restraint of trade would have been manifest as early as the quarter century preceding World War I, so far as the international market would have been concerned. The Commission had yet to come into being at that time. Still, the code of business ethics prevalent in foreign trade during that period has been characterized as being "widely at variance with the rules observed in domestic trade,"⁴² meaning that they were far worse, not far better. Since then the state of affairs has steadily worsened, due primarily to the upsurge of trade in a particular commodity—industrial agreements, usually of a patents- or joint-ownership variety where American firms are concerned⁴³—which are commonly designated as "international

³⁷ *Ibid.*, p. 164. See also T.N.E.C., Monograph No. 21, "Competition and Monopoly in American Industry," by Clair Wilcox, p. 220.

³⁸ See the testimony of S. M. Bash, Member of the Board of Managers, Steel Export Association of America (T.N.E.C., *Hearings*, Part 20 [pp. 10935, 10963, 10970]), to the effect that, because his experience had been limited to foreign trade, he was unable to state the relationship between the foreign and domestic markets. Mr. Schroeder, District Sales Manager in New York for the Wheeling Steel Corp. testified similarly. Although the governmental representatives were incredulous, T.N.E.C. Monograph No. 6, *Export Prices and Export Cartels*, p. 93, tends to support their testimony: "in most instances export price policy is determined quite independently of domestic price policy and often by different individuals."

³⁹ Kirsh, *op. cit.*, p. 162.

⁴⁰ *Ibid.*, p. 163.

⁴¹ Cf. T.N.E.C., *Final Report of the Executive Secretary* (1941), p. 102. Commissioner Thompson hinted broadly in his dissent to the decision in the Douglas Fir case that the dismissal was the result of the other commissioners' leaning-over backward to sanction the conduct of a Webb-Pomerene Association.

⁴² W. F. Notz, "Export Trade Problems," *Jour. Pol. Econ.*, Vol. 26 (1918), p. 117.

⁴³ Cf. Corwin D. Edwards, "International Cartels as Obstacles to International Trade," *Am. Econ. Rev.*, Vol. XXXIV, No. 1 (Mar., 1944), suppl., p. 331.

cartels." These have frequently enjoyed strong political backing, especially during the Great Depression;⁴⁴ and are not completely measured by a yardstick constructed to gauge restraint of trade.

The record of the Antitrust Division during the past five years is proof that a dent can be made in this armor of oligopoly by traditional legal methods; but no study has been started (making the large assumption that the necessary information would have been supplied to anyone outside of the Division during wartime), of the effectiveness of these prosecutions in terms of enlarged output and lowered average cost for items previously manufactured, or of innovations attended by lowered supply schedules, not to mention the correction of or compensation for rather permanent market conditions calling forth the agreements in the first place. The entire problem calls for economic analysis, instead of an approach conceived in terms of the preservation of free competition. For example, it is sometimes assumed that international combines (as opposed to the looser, cartel-type of organization) are synonymous with international monopoly; whereas, in fact, there may be several such combines engaged in a powerful oligopolistic struggle, producing the opposite of monopolistic stability in prices and, perhaps, in profits.⁴⁵ This effect would, *a priori*, seem to be more probable under the cartel type of agreement, because of its loose character, leading to dissolution of the ties binding the constituents during depressive conditions. Or, in the event that national control of an international combine is potent (as in the case of Germany and I. G. Farben—in a case where the combine represented an extension of a vertical or horizontal grouping at home—the home enforcement agency would be able to keep the combine within the bounds of "public service." (Unfortunately, "public service" in the German mind did not coincide with the meaning of the term in our own in this particular case.)

To summarize: the economic problems revealed in a study of the accomplishments of the Federal Trade Commission in the region of unfair competition in foreign trade are more complex than the legal remedy of attacking collusion in restraint of trade would suggest. So far as the Trade Commission itself is concerned, dissipation of its energies in prosecuting cases involving the common-law concept of unfair competition, the concomitant inattention to conditions of foreign trade, and its predilection for export trade associations have combined to make it singularly impotent in this area, despite extensive legislative authorization and its existence over a span of three decades.

⁴⁴ *Ibid.*, pp. 334-36. For the French experience, see André Piettre, *L'Evolution des Ententes industrielles en France depuis la Crise* (Paris, Librairie du Recueil Sirey, 1936), pp. 110-20.

⁴⁵ Cf. Edwards, *op. cit.*, pp. 338-39; and A. Plummer, *International Combines in Modern Industry*, 2d ed. (London, 1938), p. 15.

SOME PROBLEMS IN THE DEVELOPMENT OF THE COMMUNICATIONS INDUSTRY

By CARRIE GLASSER*

A study of the use of rapid communications in the United States in the past 18 years reveals that we are tending to talk more and write less and that, when we do write, the airplane is becoming a more important medium for the transmission of messages than the wires that connect the thousands of communities in this country. The present paper describes the changes that have taken place and discusses some of the economic problems that these changes have brought in their wake.

For the economist the problems are challenging, for they span the areas of private enterprise, government regulation and government subsidy. The framework also encompasses the problems of a declining industry, landline telegraph, whose past has been marked by inflexible price policies and poorer service standards than competitive conditions required. The future of this branch of communications will depend not only on the initiative exercised by management in correcting these deficiencies but also on the judgment of the regulatory agency, the Federal Communications Commission, in formulating measures appropriate to the present and future condition of landline telegraph. Moreover, remedial measures are also needed to provide for an orderly development of the entire rapid communications industry so that facilities essential in the public interest are not jettisoned in untimely fashion and so that labor displacement resulting from technological and other changes is effected in a manner which minimizes social costs. If the Federal Communications Commission is to solve the difficult problems that confront it, a searching investigation of the complex competitive interrelationships of the communications services under its jurisdiction must be undertaken. However, it will not be sufficient merely to limit the investigation of domestic rapid communications to a study of competition between telegraph, radiotelegraph and telephone, the utilities over which the Commission has direct and extensive regulatory authority. The intensification of competition from air mail and

*The author was formerly with the Federal Communications Commission. The opinions expressed are the author's personal views and do not necessarily reflect the views of the Commission.

the potentially large area of competition forthcoming from the adaptation of radio to common carrier communications call for a widening of the area within which appropriate policies must be formulated.

I. Definition of Rapid Communications

The term "rapid communications" is taken here to mean those services, other than the ordinary mail service and local telephone service, which provide for the transmission of written or voice communications on a common carrier basis within the United States. This definition also excludes radio broadcasting which at the present time is a non-common carrier method of communication.¹ Included in this analysis are the privately owned and governmentally regulated wire services (landline telegraph and long distance or toll telephone²), radiotelegraph communications, which are similarly privately owned but governmentally regulated, and the subsidized air mail service. In each case attention is focused on the domestic and not the international traffic handled by the various media of rapid communications. The time period surveyed is that from 1926 through 1943.

It may be noted by way of introduction that telegraphic communications within the United States are provided by three groups. The Western Union Telegraph Company, with which the Postal Telegraph Company merged on October 7, 1943, dominates the landline telegraph business. Secondly, landline telegraph services are supplied by telephone companies (mainly the Bell System) and, although these operations form a minor part of the long distance traffic handled by telephone companies,³ they have afforded considerable competition to Western Union.⁴ Of total revenues derived from domestic landline telegraph communications in 1943, 21 per cent is assignable to the telegraph operations of telephone companies and approximately 79 per cent to Western Union. Thirdly, a small amount of telegraph traffic is handled by means of radiotelegraph. Although this is an expanding service, in no year since 1926 did it, on either a volume or revenue basis, amount to as much as one per cent of all rapid communications transmitted within the United States.

¹ To the extent that radio is adapted to common carrier work, such as the transmission of facsimile messages, it is included in our frame of reference.

² A small part of long distance telephone communications in the U.S. is now being handled by means of radiotelephone. This service is now in operation on an experimental basis between New York and Boston and on a regular basis in the Chesapeake Bay area.

³ Approximately 6 per cent of all toll telephone revenues in 1943 came from the telegraph operations of telephone companies.

⁴ In view of the merger of Western Union with Postal Telegraph it will be convenient to refer in this paper to Western Union alone although it should be understood that the data for landline telegraph are based on reports from both carriers.

II. *Trends in Consumer Use of Rapid Communications*

Changes in consumer use of the different media of rapid communications since 1926 are illustrated by Table I which presents, on a per capita basis, the number of landline telegraph messages transmitted by Western Union, long distance or toll telephone messages, radio-telegraph messages and air mail pound miles flown. The statistics of toll telephone traffic do not include telegraph messages handled by telephone companies but cover only voice communications. Data on the volume of written communications transmitted over the telegraph facilities of telephone companies are not available although revenues derived from them are. The latter are examined at a later point in this paper.

The points of major interest revealed by the figures in Table I may be summarized as follows:

1. When the period is viewed as a whole and when the changes in per capita use of the different communications media on the basis of the terminal years, 1926 and 1943, are measured, landline telegraph shows a decline of 11.4 per cent while toll telephone shows an increase of 39.4 per cent. The gain in the use of air mail between 1932 (the first year for which comprehensive data are available) and 1943 was more than eightfold.

2. In the depression of 1929-1933, per capita use of landline telegraph and toll telephone fell by approximately the same relative amounts. In evaluating the significance of this decline for each service, it should be noted that between 1926 and 1929 the gain in long distance telephone usage was almost seven times as great as the gain in the use of landline telegraph. During this early period the air mail service was still on an experimental basis and, consequently, offered no effective competition to other means of rapid communication.

3. In the recovery years from 1933 to 1937, landline telegraph increased faster than toll telephone but the proportionate gain in both services was surpassed by the expansion in the use of air mail. It should be noted that the advantage realized by landline telegraph over toll telephone during this period was more apparent than real. As the data contained in Table II below indicate, between 1933 and 1937 consumer expenditures for long distance telephone increased by a far greater amount than expenditures for telegraph. The greater telegraph gain, on a volume basis, was due to the introduction of cheaper classes of messages whose proportionate increase in number exceeded the gains in terms of revenues.

4. The short depression of 1937-1938 caused a substantially greater decline in landline telegraph than in toll telephone while air mail use continued to grow.

TABLE I.—NUMBER OF LANDLINE TELEGRAPH, RADIO TELEGRAPH AND TOLL TELEPHONE MESSAGES PER CAPITA AND NUMBER OF AIR MAIL MILES FLOWN PER CAPITA, 1926-1943

Year	Per Capita ^a			
	Number of Messages			Pound Miles Flown
	Landline Telegraph ^b	Radio Telegraph ^c	Toll Telephone ^d	Air Mail ^e
1926	1.83	.007	7.80	
1927	1.79	.007	8.34	
1928	1.85	.006	9.03	
1929	1.90	.006	9.72	
1930	1.71	.006	8.68	
1931	1.48	.006	7.95	
1932	1.14	.006	6.44	50.27
1933	1.14	.007	5.76	38.50
1934	1.24	.012	5.93	35.72
1935	1.30	.015	6.12	53.36
1936	1.43	.018	6.81	76.31
1937	1.56	.022	6.89	98.84
1938	1.35	.027	6.74	108.90
1939	1.37	.027	6.93	120.86
1940	1.38	.018	7.29	141.48
1941	1.51	.018	8.28	167.38
1942	1.60	†	9.28	234.76
1943	1.62	†	10.87	423.27
		Percent Change		
1926-29	+ 3.8	- 14.3	+24.6	—
1929-33	-40.0	+ 16.6	-40.7	—
1933-37	+36.8	+214.3	+19.6	+156.7
1937-38	-13.5	+ 22.7	- 2.2	+ 10.2
1939-43	+18.3	—	+56.8	+250.2
1926-43	-11.4	—	+39.4	—

^a Obtained by dividing annual total of messages and air mail pound miles flown by the population of the United States as of July 1 of each year as estimated by the Bureau of the Census. The population figures for 1942 and 1943 exclude persons in the armed forces considered to be outside of the United States in those years.

^b Based on reports to the Federal Communications Commission from the Western Union Telegraph Company and the Postal Telegraph Company. The data exclude stock and commercial news messages and cable messages transmitted over domestic landlines.

^c Data for 1926 to 1936 inclusive based on reports to the Federal Communications Commission from RCA Communications and Mackay Radio and Telegraph Company (California and Delaware). Data for years since 1936 cover these and 5 other small carriers.

^d Based on reports of Class A telephone companies to the Federal Communications Commission.

^e Based on statistics compiled by the Postmaster General. Data prior to 1932 are not available. Air mail pound miles flown denote the weight of the mail carried times the distance flown.

[†] Data for years 1942 and 1943 are not comparable with figures for prior years because of the partial discontinuance of this service during the war upon order of the Board of War Communications as a necessary security measure.

5. Although the war period saw an expansion in the demand for all services, the growth in landline telegraph lagged far behind the increase in toll telephone and the gain in both telegraph and toll telephone was considerably smaller than the increase in air mail.⁵ Specifically, the gain in per capita use of landline telegraph amounted to 18.3 per cent between 1939 and 1943; the corresponding figure for toll telephone was 56.8 per cent and for air mail, 250.2 per cent. It is of interest to note in this connection that the remarkable expansion of the air mail service between 1942 and 1943 was accomplished with about one-half of the number of aircraft employed in 1942 because of the transfer of many commercial planes to the military services.⁶ Presumably this was done by reducing the amount of space formerly devoted to passenger traffic. It is of course true that the telephone and telegraph carriers would have been able to handle a larger volume of traffic than they actually did in 1942 and 1943 had material restrictions not prevented them from making additions to plant. The point, however, is that, although their facilities did not increase substantially, neither did they decrease as in the case of air transport of mail. Technical improvements introduced in certain parts of the system during the war years (e.g., reperforator switching in landline telegraph and automatic dialing and coaxial cable in long distance telephone communications) enabled the carriers to transmit a greater number of messages over the available circuits.

6. The development in the use of radiotelegraph was more rapid than even that of air mail in the years prior to 1938. Due to the order of the Board of War Communications restricting domestic point-to-point radiotelegraph communications during the war as a security measure, the comparison with other services is limited to the pre-war period. Despite the rapid growth of radiotelegraph, this service, as stated above, remained only a small factor in the field of rapid transmission of domestic communications. The domestic traffic of radiotelegraph carriers represents, it should be noted, only about one-fourth of their total business; the remaining three-fourths is derived from the transmission of messages between this country and foreign points.

On the basis of revenues, the different communications services show, with minor variations, the same long-run trends and shorter-run movements indicated by the data on the physical volume of traffic. Since the preceding discussion has already noted the major changes in

⁵ Some of the gain in air mail may have been due to an increase in packages handled. Data which segregate letters and packages are not available. The assumption implicit in the above statement is, therefore, that the two components bore the same relation to each other in all years.

⁶ *Annual Report for 1943 of the Postmaster General*, p. 18.

consumer use of communications services in different time periods, it will be sufficient to limit comment at this point to those aspects not already covered. For this purpose Table II presents, in index form, annual revenues received by the wire and radiotelegraph services and air mail in the period from 1926 to 1943. In addition to those services already examined, the revenue data permit identification of the growth of the telegraph operations of telephone companies. Before turning to an examination of this service, it is worth noting that in current dollars revenues received by Western Union in 1943 were approximately one per cent below its revenues in 1929. On the other hand, toll telephone revenues (exclusive of income received from telegraph operations) were 71.3 per cent greater in 1943 than in 1929; a comparable gain is indicated for radiotelegraph carriers.

Western Union and the telegraph facilities of telephone companies compete directly for the traffic afforded by business, government and the press. Telephone companies do not provide an over-the-counter telegraph service to the general public. They do provide either on a private line basis or on a general exchange basis (teletypewriter exchange service known as TWX⁷), telegraph facilities for the use of business concerns, newspapers and other press services. An examination of the statistics contained in Table II indicates that the increase in revenues from these operations between 1926 and 1929 was more than six times as great as the increase in Western Union's revenues, that the decline during the depression of the 1930's caused a much smaller loss and that the gains in the years of pre-war recovery and later during the war were greater than those realized by Western Union. Revenues from the telegraph operations of telephone companies accounted for 4.1 per cent of all rapid communications revenues in 1926 and 4.8 per cent in 1943.

A diversion of press traffic from Western Union circuits is to a large extent responsible for the marked expansion of the telegraph operations of telephone companies. Between 1929 and 1943 press messages transmitted by Western Union declined in number from 19.2 million to 7.4 million and the proportion of this traffic to the total message file of the carrier fell from 8.3 per cent to 3.4 per cent.⁸ While some of this traffic

⁷ TWX is analogous in operation to the regular telephone service except that the former is a record and the latter a voice type of communication. Subscribers to this service send telegraph messages to other subscribers by contacting the TWX operator who establishes the connection with the receiving subscriber. The sender transmits the message on a teletypewriter; on the other end the message is recorded on the same type of equipment adjusted for reception. A subscriber pays a minimum charge of ten dollars per month. If the number of messages sent during the month exceeds a certain maximum, an additional charge is levied on a per message basis.

⁸ Statistics of the number of messages, by class, transmitted by landline telegraph carriers are based on annual reports to the Federal Communications Commission.

TABLE II.—INDEXES OF REVENUES RECEIVED FROM DOMESTIC TELEGRAPH, LONG DISTANCE TELEPHONE AND AIR MAIL COMMUNICATIONS, 1926-1943
(1939=100)

Year	Index of Annual Revenues (1939=100)						
	Landline Telegraph			Radio Tele- graph	Toll* Tele- phone	Air Mail	Grand Total
	Western Union	Telephone Companies	Sub- Total				
1926	142	70	128	32	76		87
1927	140	76	127	32	83		92
1928	145	89	134	29	95		102
1929	154	106	145	31	108		114
1930	139	114	135	36	106	31	110
1931	118	107	115	34	99	39	101
1932	90	92	90	33	80	38	81
1933	88	89	88	33	71	38	75
1934	94	90	93	60	76	36	79
1935	99	88	97	74	81	41	84
1936	107	103	106	89	91	61	94
1937	108	110	108	107	96	75	98
1938	97	100	98	95	93	94	95
1939	100	100	100	100	100	100	100
1940	104	98	103	159	107	119	107
1941	118	106	116	184	127	149	125
1942	132	151	136	119	147	209	146
1943	153	173	157	55	185	376 ^b	183
			Percent Change				
1926-29	+ 8.4	+51.4	+13.3	- 3.1	+42.1	—	+31.0
1929-33	-42.9	-16.0	-39.3	+ 6.4	-34.2	—	-34.2
1933-37	+22.7	+23.6	+22.7	+224.2	+35.2	+ 97.3	+30.7
1937-38	-10.1	- 9.1	- 9.2	-11.2	- 3.1	+ 25.3	- 3.1
1939-43	+53.0	+73.0	+57.0	-45.0	+85.0	+276.0	+83.0
1929-43	- 0.7	+63.2	+ 8.3	+77.4	+71.3	—	+60.5

Sources: Same as Table I. Data for telegraph operations of telephone companies for 1926 to 1934 inclusive are based on Bell System reports to the Federal Communications Commission. The 1935-43 data for this service cover telegraph operations of all large telephone carriers. The change in coverage affects the comparability of the statistics in the two periods to only a minor degree.

* Exclusive of revenues from telegraph operations.

^b Estimated.

may have been diverted to new classifications introduced by Western Union in 1931 (timed wires and serials), a greater part of the loss was undoubtedly to the private line telegraph circuits and TWX facilities of telephone companies. Aside from the press, the use of TWX by government and business has expanded rapidly in recent years.

The evidence presented thus far points clearly to an important shift in consumer use of rapid communications media. Even before the

advent of the domestic air mail service on a large scale, the landline telegraph services of Western Union were losing ground to long distance telephone communications. In this respect the change involved a trend toward greater use of the oral rather than the written form of rapid communications. In this pre-air mail period, however, it is also evident that in the field of written communications Western Union was losing traffic to the telegraph circuits of telephone companies.

As a result of the smaller gains in expansion periods and greater declines in depression years, Western Union's share of revenues from all rapid communications fell almost without interruption from 35.2 per cent to 18 per cent between 1926 and 1943. (Table III shows for each year the proportion of revenues from each source of total communications revenues.) The share taken by long distance telephone increased during the same period from 60.5 per cent to 70 per cent. The share of air mail grew from one per cent in 1930 to 7 per cent in 1943. In terms of physical volume, between 1939 and 1943 air mail traffic increased more than 258 per cent; the corresponding gain for landline telegraph was 21.4 per cent and for long distance telephone calls, 60.6 per cent.

TABLE III.—PERCENT REVENUES RECEIVED FROM TELEGRAPH, TOLL TELEPHONE AND AIR MAIL SERVICES OF TOTAL RAPID COMMUNICATIONS REVENUES, 1926-1943

Year	Percent of Total Annual Revenues from Rapid Communications						Total Rapid Communications Revenues (thousands of current dollars)
	Domestic Telegraph Revenues			Toll Telephone (excl. of telegraph)	Air Mail	Total	
	Western Union	Telephone Companies	Radio Telegraph				
1926	35.2	4.1	.2	60.5		100.0	404,529
1927	32.8	4.2	.2	62.8		100.0	427,647
1928	30.8	4.5	.1	64.6		100.0	471,867
1929	29.3	4.8	.1	65.8		100.0	528,117
1930	27.2	5.3	.1	66.4	1.0	100.0	513,135
1931	25.1	5.4	.1	68.1	1.3	100.0	469,932
1932	23.9	5.8	.2	68.5	1.6	100.0	375,388
1933	25.6	6.1	.2	66.3	1.8	100.0	346,258
1934	25.7	5.8	.3	66.6	1.6	100.0	367,525
1935	25.4	5.4	.4	67.1	1.7	100.0	388,666
1936	24.6	5.6	.4	67.2	2.2	100.0	437,070
1937	23.6	5.7	.4	67.6	2.7	100.0	456,641
1938	22.2	5.4	.4	68.5	3.5	100.0	438,814
1939	21.6	5.1	.4	69.4	3.5	100.0	464,203
1940	21.1	4.7	.6	69.8	3.8	100.0	495,752
1941	20.4	4.3	.6	70.5	4.1	100.0	580,339
1942	19.6	5.3	.3	69.9	4.9	100.0	677,235
1943	18.0	4.8	.1	70.0	7.1	100.0	850,859

Source: Same as Table II.

With the growth of the air mail service, which each year added to its coverage more and more communities and improved its service in speed and reliability, a further diversion of traffic from Western Union landlines was affected. It is of interest to note that the results of air mail competition are particularly noticeable in, although not limited to, the cheaper classes of telegraph messages (day letters and night messages) which were belatedly introduced by the carrier in an effort to retain consumer preference for its services. Even at the height of the war boom in 1943, for example, 8.7 million fewer night messages were sent than in 1929 and 5.5 million fewer day letters.

There can be little doubt that the reduction in consumer demand for day and night letters is closely related to the growth of air mail.⁹ Because both classifications, the second and third largest categories of traffic handled by Western Union, are of a deferred nature (that is, the transmission of messages in these classifications is delayed if higher priority telegrams await sending), demand is strongly influenced by the fact that air mail is both a cheaper form of communication and in many cases satisfies approximately the same class of need more adequately. It may be anticipated that in view of the increasing speed of the air mail service and its rapidly expanding coverage, an even greater diversion of traffic of the deferred type from telegraph landlines to air mail will result unless drastic changes are made in the rate and service policies of the landline carrier. Whether these changes can be made fast enough to match the tempo of advance in aviation appears to be doubtful. However, no alternative to such experimentation is in the offing except that of contraction.

Another market for the services of Western Union appears to be narrowing. Prior to 1934 the number of federal government messages transmitted over landline circuits increased steadily each year. In 1934 9.8 million government messages were sent or 6.2 per cent of the total message file of Western Union. From 1934 to 1941 this source of traffic decreased sharply; only 5.8 million government messages were handled in 1939. The reduction in volume, which was partly offset by an increase in government rates, is largely attributable to the growth of the federal government's own system of rapid communications. The War and Navy Departments sent by means of radio 46.8 million words in 1934 and 71.1 million words in 1940, an increase of nearly 28 per cent.¹⁰ These figures cover messages handled by these departments for

⁹ A correlation analysis made between consumer expenditures for day letters (dependent variable) and air mail (independent variable) in the period 1930 to 1943 yielded a coefficient of more than minus .9. Similar results were obtained on the basis of the relationship between expenditures for night messages and air mail.

¹⁰ Source: Appendix to Hearing on Senate Resolution No. 95, 1941, pp. 243-44.

other government agencies as well as their own traffic. Although data are not available it may be assumed that this trend has continued during the war. A second factor responsible for the loss of government traffic by Western Union has been the tendency toward greater use of long distance telephone communications and TWX by government agencies.¹¹

In 1942 and 1943 the volume of government traffic transmitted over Western Union's lines was greater than in any year since 1926 due to war activity and to the fact that the government's own circuits were operating at full capacity. There is some question as to whether the declining trend indicated between 1934 and 1939 will be resumed after the war or whether the government will abandon its own facilities and turn back to using those of the private carriers. Needless to say, this is a problem which troubles the industry greatly. A reading of the trade journals leaves one with the impression that no great optimism exists that the costly and technically proficient communications system developed during the war by the government will be dismembered in the near future.

III. Markets for Competing Rapid Communications Media After the War

From the preceding brief review of the development of rapid communications since 1926, we may conclude that the heyday of Western Union's landline telegraph operations is now past as a result of a shift in consumer preference in the direction of greater use of long distance telephone communications. This shift occurred even before the advent of air mail but, as the latter expanded, further inroads were made on traffic that would otherwise have gone to the landline telegraph circuits. The decline in government traffic due to the development of a government owned and operated rapid communications system and the diversion of business and press traffic from Western Union lines to telegraph circuits of telephone companies, added to the losses suffered by the major landline carrier.

The diversionary effects of air mail competition were, however, not limited to landline telegraph alone. From the data presented in Table I above, it will be observed that the number of long distance calls per capita in the years from 1930 to 1942 was less than in 1929 and only in 1943 did this index of consumer use of long distance telephone com-

¹¹ The number of government messages handled by the Chesapeake and Potomac Telephone Company out of Washington doubled between 1934 and 1941 while Western Union's government file declined by more than 40 per cent in the same period. Because the data reported by the telephone company cover both long distance telephone calls and TWX messages, the total increase indicated may not accurately represent the gain for each component.

munications rise above the 1929 level. It may therefore be inferred that air mail siphoned off traffic from telephone as well as from telegraph lines. That landline telegraph has suffered more from air mail competition than telephone is readily explainable by the fact that both telegraph and air mail transmit written communications. However, since there are many situations in which written messages can serve the same purposes as oral communication, an area of competition exists within which both air mail and long distance telephone vie for traffic.

There is, of course, an area wherein each service satisfies consumer demand in a unique fashion so that the substitution of one service for another is not a real possibility. Thus, in considering consumer use of landline telegraph, it is obvious that where a record of a message is desired or where the simultaneous presence of the communicating parties at the telephone is not possible, a reduction in long distance telephone rates would not cause a loss in telegraphic traffic even if telegraph rates remained unchanged. Where a written record is not required but the message is short enough to take the minimum telegraph rate and this rate is cheaper than the initial period long distance telephone rate, consumer use of landline telegraph may be maintained. The low cost of air mail service has in the past and will in the future act to divert traffic from both long distance telephone and landline telegraph lines. But even in this case it is patent that certain classes of traffic are not divertible for various reasons, the most important of which are the superior speed of telegraph and telephone transmission and the accessibility of these services in many communities not served by direct air mail routes.

The examples cited indicate that there are certain types of consumer demand for which competition is limited because no real alternative or substitute method of rapid communications is available. However, while traffic of this type is an important component of each service, there are other large classes of traffic for which the different communications media are all competitors. Moreover, largely by virtue of the impetus provided by air mail, the area of competition is being widened rapidly. It will be readily admitted that the potentialities of the air mail service after the war are now greater than seemed possible even as late as 1941 due to the tremendous wartime advances in aviation technology and to the growth in the scale of airplane production. Even under wartime limitations of equipment, the air mail service has developed enormously; the reconversion of the airplane industry for commercial purposes will mean more planes, greater speed, reliability,¹²

¹² The reliability of the air mail service has been consistently high but in all years since 1926 the number of air miles actually flown was less than the number scheduled. In no year, however, was this ratio of performance less than 90 per cent. Source: *Annual Report for 1943* of the Postmaster General, p. 85.

and coverage than has been possible heretofore for this branch of rapid communications.¹³

These factors will inevitably intensify the competition which air mail offers to both telephone and telegraph. They will serve to narrow the area of strong consumer preference for telegraph to a class of record communications which must be delivered within a shorter time period than is possible by means of air mail. Even at the present time a serious breach has been affected in the area of rapid communications previously dominated by the wire services by the introduction of an eight-hour air mail service from coast to coast. This rapid service is still limited but it may be anticipated that, as it becomes more generally available, only those messages that require less than eight hours for transmission need be sent by means of wire from, say, New York City to San Francisco. It remains to be seen how soon the area of public preference for wire services will be reduced even further. In view of the fact that air mail rates are now so relatively low, future changes in such rates may be of less competitive significance to telephone and telegraph carriers than improvements in speed, accessibility and reliability of the air mail service.

Faced with the challenge offered by air mail, long distance lines have been extended, rates have been reduced (although it is debatable whether they have been reduced sufficiently), and service has steadily improved.¹⁴ With respect to landline telegraph, it is commonly recognized that such measures that have been taken in the past have been for the most part of the "too little and too late" variety. Thus, although the need for a new class of service, at rates low enough to cause at least a retention if not an expansion of consumer use of telegraph, was recognized at the outset of the depression of the 1930's, it was not until 1934 that such a classification was put into effect by Western Union. The demand for this new service (greetings, tourate and other flat rate communications) grew rapidly from then on but either because the rates were not low enough or because consumer habits with respect to the use of telegraph had by that time been changed, the increase in traffic yielded by this new service was not sufficient to offset com-

¹³ It is somewhat startling to learn that in 1944 there were only 245 commercial aircraft in operation and 453 in 1941. (Source: Civil Aeronautics Administration.) Estimates of the number of planes to be used by commercial lines within the next ten years range from 1,000 to 5,250. (Source: Exhibit 109, Docket 6651, Federal Communications Commission, Sept. 28, 1944. In the Matter of Allocation of Frequencies.)

¹⁴ The effect of air mail competition on long distance telephone has not, and probably will not, be of major concern to telephone companies as long as the economy operates on a fairly high level. While business conditions remain good, their share of all rapid communications traffic may decrease, but the absolute volume of telephone traffic will grow. The situation in telegraph is quite different for in this case it is not only the share but the absolute amount of business that is in danger of being cut severely.

pletely the revenue losses suffered by the other categories of traffic.

Other cheaper classes of services, serials and timed wires, designed to recover some of the business and press traffic lost to the telegraph operations of telephone companies, were introduced belatedly and failed to stimulate demand sufficiently. In this case the competition that Western Union had to meet was not only that of lower rates but also better service. TWX (the teletypewriter exchange service of the Bell System) was started in 1931 and rapidly outbid Western Union on both bases. At the present time the issue faced by Western Union is no longer that of forcing TWX out of the industry by undercutting it in rates or by excelling it in service. Rather, the question now is whether to absorb TWX, permitted by act of Congress, and thus eliminate competition through amalgamation. In this connection it is of interest to note that the National Federation of Telephone Workers, the union that represents a considerable number of telegraph as well as telephone employees of the Bell System, has come out in active opposition to the merger largely on the ground that the growing telephone industry affords workers greater security than Western Union.

Since TWX has absorbed much of the press traffic that formerly was handled by Western Union, the merger presumably would return to that carrier a valuable source of income and eliminate an active competitor. If it is assumed that the merger will take place, the benefits sought will be realized only if the following conditions prevail: (1) any diversion of traffic from other classes of service provided by Western Union is more than offset by the increase in use of TWX, and (2) the superiority of TWX is maintained even after new types of services are developed and placed on the market.

The tendency for a new service to siphon off traffic from older classifications has been proven by experience. So far, the new services developed by Western Union have not been sufficiently successful in increasing consumer demand with the result that Western Union's share of total rapid communications traffic has fallen steadily. Even more striking is the fact that in 1943 the domestic revenues of the carrier were still below their 1929 level. The explanation for this situation, as already stated, appears to be the tardy introduction of the new classifications of messages at low rates, the failure to make the necessary reductions in rates in the older classes of messages, and the maintenance of service which by comparison with competing types of communications was inadequate. The revision of the present rate structure is the central problem that confronts the landline carrier as well as the regulatory agency.

While major adjustments in Western Union's rate structure are

prerequisite in the struggle to maintain the carrier's standing in the communications field, it is also generally recognized that the present telegraph plant requires extensive modernizing to keep pace with known improvements in the communications arts. The technique of communications is rapidly changing and with the relaxation of wartime controls new products will be forthcoming. Because the ownership of these products or services is not monopolized by a single concern, competition may be expected to be active in bidding for traffic now handled by even such technically efficient methods as TWX. For example, the facsimile process of handling telegrams which does away with coding and decoding operations and thus reduces transmission time and reduces the possibilities for error, has long been known, but until recently steps were not taken by Western Union to place the process on a commercial basis. There is considerable opinion that such delays in seeking out improved methods of telegraphic communication are responsible in no small part for the inability of Western Union to compete effectively with other services.¹⁵ The Bell System is also an owner of valuable facsimile patents and it is conceivable, especially if TWX is not merged with Western Union, that its facsimile service will be introduced in competition with that of Western Union. Further, the International Business Machine Corporation, together with General Electric, has made application to the Federal Communications Commission for frequencies, part of which are intended for use in sending facsimile messages by means of radio. Should this process be proven commercially feasible, three powerful competitors for telegraph traffic would be in the field, Western Union, the Bell System and IBM. The writer is not qualified to comment on the relative merits, from an engineering standpoint, of the different types of facsimile reproduction, but it may be noted that the addition of this new service and new competitors in the field of rapid communications is certain to complicate the already difficult problems now facing Western Union.¹⁶

To sum up: with the growing intensification of competition from

¹⁵ It is significant that Western Union owns few of the basic telegraph patents and almost none of those covering the most advanced phases of telegraphy. The latter are largely owned by the Bell System and the Radio Corporation of America. To obtain the use of the required apparatus covered by patents, Western Union must obtain licenses with the result that the cost of a new process may be increased. Of probably greater importance is the fact that lack of ownership means delay in the introduction of necessary improvements. See: Report of the Federal Communications Commission on The Investigation of the Telephone Industry in the U.S., House Document No. 340, 76th Cong. 1st Sess. (1939), pp. 224-35.

¹⁶ Western Union officials in recent statements have emphasized the great potentialities of "Telefax," the carrier's facsimile process, in stimulating new demands for telegraph. However, it is apparent as Mr. I. S. Coggeshall, General Cable Supervisor of Western Union, has stated that while "Telefax, has the great advantage for the telegraph industry of never making errors, [it] would *not* come rapidly for long distance main line

air mail, long distance telephone communications, the telegraph services of telephone companies, radiotelegraph, the radio functioning on a common carrier basis, it would appear that not even the monopoly rights over domestic landline telegraph granted indirectly by Congress to Western Union,¹⁷ may be sufficient to prevent a serious contraction in Western Union's scale of operation. The consequences of such a contraction are not restricted to the private interests of Western Union stockholders but involve the public interest in two important ways: (1) it is a matter of national concern that there be no untimely dismemberment or abandonment of telegraph facilities deemed essential for national defense and peacetime communications needs; and (2) it is in the public interest that the displacement of labor resulting from either a contraction of telegraph service or from technological improvements takes place in a manner which minimizes social costs. The probability is great that should competition in the communications industry continue along present lines, the rate of decline of landline telegraph might be faster than would be desirable from the viewpoint of the public interest. It is within the authority and power of the regulatory agency to prevent such a development and to ensure that a rational program is followed with respect to the displacement of labor.

IV. *Some Problems in the Regulation of Communications*

The Federal Communications Commission is instructed by law that the objective of its policies should be to regulate "interstate and foreign commerce in communications by wire and radio so as to make available as far as possible, to all the people of the United States a rapid, efficient, Nation-wide and world-wide wire and radio communications service with adequate facilities at reasonable rates."¹⁸ To carry out this directive a fairly detailed plan of the facilities essential to meet national peacetime and wartime communications requirements is needed, but it is yet to be developed. If it could be developed, it would greatly assist the regulatory agency in formulating rate and service policies for the communications industry. The following dis-

telegraph because it required such wide band transmission." *Telecommunications Reports*, Vol. 11, No. 5, Sept. 14, 1944, p. 27 (italics supplied). The employment of wide band transmission means that many channels must be used in sending a single message thus increasing the sending cost and withdrawing channel space for transmitting the usual code type of message.

¹⁷ By virtue of the 1943 amendment to the Communications act which permitted the merger of the domestic landline carriers.

¹⁸ Sec. 1, Communications act of 1934, as amended (1st sess., 78th Cong. Approved March 6, 1943, 57 Stat. 11). The Commission has licensing but no rate-making authority with respect to radio broadcasting in its non-common carrier aspects. Rate making authority with respect to interstate operations of common carriers is provided in Sections 202(a) and 205(a) of the act.

cussion does not attempt to outline such a plan, which can only be drawn up after detailed study of the peacetime communications requirements of the nation and the defense requirements of the government. Our comments are limited to suggesting criteria that deserve consideration in the preparation of such a guide and to pointing out certain implications for the regulation of landline telegraph.

The requirements of national defense may be proposed as the first objective of an adequate communications network. Reference has already been made to the expansion of the federal government's own system of communications since 1934 and to the fact that between 1934 and 1941 the volume of government traffic handled by Western Union declined substantially. Should the government's facilities be maintained after the war, the extent of Western Union facilities needed to supplement this network for purposes of defense would probably be very small. However, the fate of the government's system is still unknown and probably will remain so for some time to come. Unless it is decided to maintain this network intact there is justification as a security measure for controlling the rate of contraction of the privately owned landline telegraph system. Otherwise, it is apparent on the basis of past evidence that, left free to adjust itself to the effects of competition from long distance telephone and air mail, the landline telegraph network would in all probability be reduced after the war to a point inconsistent with the public interest. There are other compelling reasons for controlling the decline of this branch of communications, as we shall later indicate.

Secondly, a system of rapid communications should satisfy adequately the peacetime, civilian and business, requirements of the nation. The determination of this need should be guided, among other things, by the following criteria: (1) the adequacy of communications facilities should be judged not in terms of telecommunications alone but rather on the basis of all facilities available for the rapid transmission of communications; (2) the criterion of adequacy should be a changing one adjusted to new developments in the communications arts and to the growth of different types of communications media.

It may appear to be laboring the obvious to state that the adequacy of communications facilities in a community should be evaluated in terms of all types of media available. In practice, however, because of the division of authority which places interstate telecommunications under the surveillance of the Federal Communications Commission while the air mail service is controlled by the Civil Aeronautics Authority and Congress,¹⁹ there is a tendency on the part of the Commis-

¹⁹ Congress sets the rates for air mail while the C.A.A. negotiates contracts with air lines and determines the routes and frequency of the service.

sion to limit its scope of reference to the field of telecommunications proper. Less attention than would appear desirable has been paid in the past to the relationship of the air mail service to the general communications network. In view of the rapidly expanding coverage of the air mail service and the increasing substitution of this service for telegraph and telephone communications, it would appear not only desirable but also necessary that the network of communications be envisaged in its entirety. The conditions of the air mail service (its coverage, frequency and rates) are data over which the F.C.C. exercises no control. However, they are data which should be admitted as evidence in drawing plans of communications requirements. Moreover, the changing conditions of the air mail service warrant more careful study on the part of the Commission than has been undertaken heretofore in order that proper accommodations can be made in the rate and service regulations governing both telephone and telegraph communications.

The criterion of adequacy should not only be comprehensive in scope but should also be a changing one which would permit newer and cheaper forms of communications to replace older and more expensive types where the public interest can be served. The F.C.C. must, therefore, be alert to see that its policies do not result in a freezing of the present network when more economical services are available. We have suggested that under the pressure of competition Western Union may seek to abandon landline telegraph facilities and that such action, under certain conditions, may adversely affect the public interest. In such cases it has been argued that the government's decision to prevent a reduction in service is justifiable. On the other hand, there is a danger that pressure may be exerted to retain facilities where the need is not adequately demonstrated. For example, with the extension of telephone service and the further lowering of long distance telephone charges, it is conceivably in the public interest to permit the closing of telegraph offices in many small communities where telegraph messages could be telephoned in to larger main offices. If the cost to consumers of a telegram transmitted in this manner can be made lower than the cost of a message filed over the counter in a small community, and this assumes that adequate telephone facilities are available, the elimination of a telegraph office would appear to be amply justified; no reduction in service would be entailed.

The need to guard against the freezing of existing facilities, where communications requirements can be satisfied in a cheaper and more efficient manner, is of particular importance in the case of landline telegraph. Under the pressure of declining demand, the number of public telegraph offices operated by Western Union and Postal Tele-

graph decreased from 26,653 in 1920 to 22,580 in 1942. As a result of the merger of the two carriers in 1943 and with the permission of the F.C.C. to close duplicate offices (those within one-quarter of a mile of each other) the number of these offices were further reduced. In September, 1944, there were approximately 18,700 public telegraph offices operated by Western Union independently or in conjunction with agents. Because of the marked decline in public offices and because it is felt that many communities are still not provided with adequate communications facilities, there is a tendency to view with disfavor further reductions in public telegraph facilities. There is little reason to question the soundness of this attitude at the present time or until such time as an adequate inventory is taken of peacetime and wartime communications needs. The point to be made, however, is that as requirements change the yardstick to be applied in determining the adequacy of particular facilities in a community should also change.

The difficulties involved in formulating a plan to meet communications requirements are admittedly formidable. In addition to the normal complexities of such problems, the regulatory agency is faced with pressure from labor unions and local community interests to require more extensive facilities than the private carriers are prepared to establish and operate. Although telecommunications services are public utilities, they are not government subsidized monopolies such as the postal service; and, consequently, difficult decisions will need to be made in balancing demands for service against the financial objection put forth by the carriers. The pressures are certain to be stronger in the case of landline telegraph than for other branches of rapid communications because of the definite trend toward contraction in that service. Since a direct government subsidy for the maintenance of a landline telegraph system does not appear to be a political possibility at the present time, the balancing of justified demand against facilities and the ascertainment of justified demand will be difficult. A forecast of national communications needs and the development of a plan to meet them should serve as a useful guide to the F.C.C. in reaching such decisions and in realizing its legal objective: an adequate communications network.

The necessity to provide adequate facilities to satisfy military as well as civilian communications requirements, therefore, calls for increased governmental control over the landline telegraph system. There is an important additional reason for governmental action that deserves consideration. Landline telegraph is an industry which employs a large number of workers who have long seniority. Prior to our entrance into the war over 18,000 employees of Western Union and Postal Telegraph had been engaged in telegraph communications

for more than 15 years, while more than 26,000 had been telegraph workers for 10 years or more. In the same year, 1940, more than half (approximately 20,000) of all the employees of both carriers were 36 years of age or over, and nearly one-fourth (8,681) were 45 years of age or over.²⁰ More recent information regarding the seniority and age of telegraph employees is not available but, while the ratio of the long seniority and older age groups to the total number employed has undoubtedly been reduced due to the wartime expansion of the labor force, the absolute number of persons in this group has probably not been altered markedly because turnover among such employees is characteristically low.

The transfer of a large number of these older persons to other employments would be a difficult and humanly costly endeavor, for they have long experience in a single trade and have developed specialized skills not easily adapted to occupations in other industries. Moreover, it should be noted that the long-term attachments of these persons to landline telegraph, a relatively low paying trade, has been strongly influenced by the security that the industry appeared to offer. The act of Congress approving the telegraph merger took cognizance of this problem and included provision for employment security for a limited period. Thus, employees who were in the hire of the carriers at the time of the merger (September, 1943) and whose period of employment in the industry began before March 1, 1941, are provided a guarantee of employment subsequent to the merger at wage levels prevailing at the time of the merger.²¹ The terminal date of this guarantee for those qualifying for the maximum amount of protection

²⁰ Study of the Telegraph Industry, S.Res. 95, Pt. 2, pp. 281, 283 (1st sess., 77th Cong., 1941).

²¹ *Ibid.*, Section 222(f) (1). This section reads: "Each employee of any carrier which is a party to a consolidation or merger pursuant to this section who was employed by such carrier immediately preceding the approval of such consolidation or merger, and whose period of employment began on or before March 1, 1941, shall be employed by the carrier resulting from such consolidation or merger for a period of not less than four years from the date of the approval of such consolidation or merger, and during such period no such employee shall, without his consent, have his compensation reduced or be assigned to work which is inconsistent with his past training or experience in the telegraph industry."

Part 12 of the Section qualifies this guarantee: "Notwithstanding the provisions of paragraphs 1 and 7, the protection afforded therein for the period of four years from the date of approval of the consolidation or merger shall not, in the case of any particular employee, continue for a longer period, following such date of approval, than the aggregate period during which such employee was in the employ, prior to such date of approval, of one or more of the carriers which are parties to the consolidation or merger. As used in paragraph 1, 2 and 7 the term "compensation" shall not include compensation attributable to overtime not guaranteed by collective bargaining agreements." Thus, if an employee had only three years' seniority as of March 1, 1941, his guarantee of employment after the merger would be limited to three years.

(four years) is September, 1947. Contemporary guesses about business activity after the war indicate that a business contraction may be anticipated in the late 1940's. Freed of legal obligations to provide employment and faced with a cyclical as well as a trend decline in the demand for telegraph communications, Western Union may well find it necessary at that time to reduce the size of its labor force substantially.

The replacement of present techniques of telegraphic transmission by reperforator switching and facsimile will undoubtedly diminish the requirements for operators and other groups of employees now engaged in the industry. While some retraining of older employees for the new jobs is possible and desirable, it may well be found that many older employees are not easily adaptable to new tasks which are more routine, require less skill and are lower paid than those in which they are presently engaged. Consequently, if the labor market is unfavorable to the absorption of these older age employees into other industries, as it probably will be unless the economy is operating at wartime levels, substantial suffering as well as considerable loss of income for thousands of telegraph employees may ensue. The social cost involved in controlling the rate of decline of the telegraph industry so that the displacement of older age and long seniority employees takes place gradually and at a minimum of human cost is one which would appear to be a legitimate charge upon the nation.

The problem of a contraction in telegraph service has so far been viewed in terms of government control of the rate of abandonment of facilities. To the argument that such action is justifiable for reason of military and civilian communications needs, there is added those considerations arising from the displacement of labor. Government action, however, need not and should not be limited merely to the control over facilities. The revision of the telegraph rate structure with a view to stimulating or at least, maintaining, consumer demand for this type of communication is an area of investigation that warrants more intensive study than has been undertaken heretofore. To this end, an inquiry into the nature of the demand for all types of rapid communications—telephone, telegraph and air mail is needed. The objectives of such an inquiry should be at least threefold: (1) to eliminate the anomalies now present in the telegraph rate structure; (2) to simplify the complicated system of message classification so that the establishment of a rational rate policy for landline telegraph would be facilitated; and (3) to determine the extent to which substitution of one type of rapid communications service for another should be controlled by means of rate regulations. More extensive revisions

than those here suggested may be found necessary as the economy enters its post-war phase and competition among the various media of rapid communications becomes more active. For example, the desirability of establishing a single uniform rate for all telegraph messages sent anywhere within the United States is a matter which warrants investigation.

It is appropriate, finally, to note that government regulation of the communications industry is still in its early and formulative stages. It will be recalled that the groundplan for adequate regulation of the interstate operations of common carriers in the communications industry was not provided until 1934 when the Federal Communications Commission came into being. From 1910 to 1934 the Interstate Commerce Commission was charged by Congress with the regulation of interstate telegraph and telephone communications²² but because of the inadequacy of the legislative sanctions under which the I.C.C. was called upon to operate and by virtue of the fact that the activities of that agency remained centered on railroad problems, the amount of regulation actually effected was not substantial.²³ With little to go by in the nature of background studies of the conditions and problems of the common carrier communications industry, the work of the Federal Communications Commission has of necessity proceeded slowly.²⁴ However, less than a year after its organization the Commission, under joint resolution of Congress,²⁵ undertook an extensive investigation of the telephone industry. This investigation, started in 1935, was not completed until 1939.²⁶ A less comprehensive but still lengthy inquiry into the rate and tariff policies of the telegraph industry was started early in 1935; various sections of this investigation are currently underway. This body of information has been supplemented in the course of the Commission's numerous investigations into rate and service matters in the telephone and telegraph industries. Considerable knowledge regarding the operations of the telegraph industry was

²² In 1910 the Interstate Commerce act was amended placing common carriers engaged in the transmission of intelligence by wire or wireless under the jurisdiction of the I.C.C.

²³ Senate Committee Report, No. 781, 73rd Cong., 2nd Sess., "Report on Bill (S. 3285), Communications Act of 1934, on the formation of the Federal Communications Commission."

²⁴ Preoccupation with radio broadcasting matters and investigations by Congressional committees have also been responsible for a division of the Commission's time and energies.

²⁵ Public Resolution 8, 74th Cong., 49 Stat. 43.

²⁶ The final report, "Report of the Federal Communications Commission on the Investigation of the Telephone Industry," was published as House Document No. 340, 75th Cong., 1st Sess. (1939). In addition to this report there are a large number of special staff studies of particular aspects of the telephone industry.

also obtained in the course of Congressional and Commission hearings and from studies of the proposed merger of Western Union and Postal Telegraph.

There is considerable evidence that the Commission has not been unaware of the critical situation facing the landline telegraph industry. Illustrations revealing the Commission's concern with this problem are numerous but one will suffice. In the decision approving the merger of Western Union and Postal Telegraph, the Commission stated:

Such steps [rate reductions and the elimination of anomalies in the telegraph rate structure] must be taken if the merged company is to render the service to which the public is entitled. Moreover, they are necessary if the telegraph industry is to compete effectively with the telephone and air mail services and not again find itself in a straitened financial condition. If appropriate action along these lines is not undertaken voluntarily by the merged company, the Commission will initiate appropriate action to this end. . . .²⁷

It may be pointed out that, in view of the past record of the telegraph industry, it would seem wise for the Commission to initiate its own investigations at the earliest possible time. The rapidity of technological changes in all branches of the communications industry will inevitably sharpen competition especially after wartime demands for each service have receded and business returns to something approaching "normal" levels. It seems clear, therefore, that studies carried on simultaneously by the industry and by the Commission are required at the present time. Moreover, since the interests of the public and Western Union, although close, are not identical, there is further reason for pressing independent study on the part of the regulatory agency.

²⁷ "In the Matter of the Application for Merger of the Western Union Telegraph Company and Postal Telegraph, Inc." Docket No. 6517, decided September 7, 1943.

A GRAPHICAL ANALYSIS OF PERSONAL INCOME DISTRIBUTION IN THE UNITED STATES

By MARY JEAN BOWMAN*

Interest in the various types of distribution of income in the United States has been snowballing in recent years as the relations between these distributions and economic processes are more fully recognized and as new data become available. At the same time the political significance of the various aspects of income distribution have become increasingly apparent. Income distributions of three distinct kinds have received increasing attention.

(1) Studies of national income and the composition of national product have involved extensive analyses of the value of output and of income payments according to the industry in which they originate. These studies are of interest not only as cross-section pictures of the structure of the economy, but also for the light they throw on the changing relative importance of different industrial sources of income (including government as a distinct category) with changing levels of business activity. Much of this work has been done in the Department of Commerce, which first published an analysis of this type in 1934.¹ This same study included a second type of analysis of income distribution, *i.e.*, by functional source.

(2) Functional distribution has been the focus of theoretical analysis in the classical tradition but has received only limited attention in empirical explorations. Since 1933, the Department of Commerce has maintained a continuous series of estimates of aggregate income payments accruing as wage and salary incomes, as entrepreneurial incomes (including rents and royalties), as dividends and interest, and in other minor categories that have been reclassified from time to time. Although it is impossible to identify these (or any other statistical categories) with precisely defined theoretical concepts, the statistics provide rough approximations. The Department of Commerce series on income payments by "function" shows, among other things, that wage and salary incomes remained around 62 to 63 per cent of the

* The author, before accepting a position with the Bureau of Labor Statistics, in Washington, D.C., was assistant professor of economics at Iowa State College.

¹ *National Income, 1929-32*, Sen. Doc. No. 124, 73rd Cong., 2nd sess. Dr. Simon Kuznets planned the study, supervised the estimates, and wrote the text.

aggregate of all incomes from 1929 to 1940, and that since that time they have increased, reaching 71 per cent in 1943. Income payments in the form of interest and dividends have meanwhile diminished in relative importance, gradually at first and more rapidly since 1940. This does not prove a redistribution in favor of wage earners, however, since corporate savings increased during this period.

(3) Distributions by recipients, or "personal income distributions," are at once the oldest and the newest field of statistical investigation of income distribution. Fifty years ago Italian statisticians were examining the size distributions of incomes of taxpayers, long before the federal income tax was established in the United States. Gradually we have added to our data and to our appreciation of the importance of the subject. Tax data have been supplemented as a source of information by large-scale expenditure studies in this country—notably the surveys conducted in 1935-36, 1941, and the first quarter of 1942. These have vastly increased our knowledge of the character of personal income distributions in the modal and lower income ranges, as well as providing data by households instead of taxpayers, and by various breakdowns of different population groups.² Special studies in Minnesota and Wisconsin in the late thirties contributed to techniques for collection of income data as well as to the body of facts concerning income distributions. The 1940 U.S. Census included questions concerning wage and salary incomes in 1939. If present plans materialize, a sample personal income census may be taken this year as a part of the census program of basic economic statistics.

Interest in the distribution of personal incomes has many facets. One of the oldest is the relevance of such data for government fiscal planning, an interest that has taken on new coloring with the development of Keynesian and related analyses of unemployment and business activity. Personal income distributions have also exceptional social, political, and ethical significance.

In view of the fact that the 1945 sample census may soon increase the detailed information available on personal income distribution among various sectors of the population of this country, this is an appropriate moment to examine the techniques by which these data may be most effectively summarized and their implications made clear. A graphical analysis of selected aspects of the distribution of personal incomes has been undertaken in this article, in the hope that some improvements may be made in the presentation and interpretation of such data in the future. Improved techniques of description of personal income distributions should facilitate also a better understanding of

² In particular by family size, occupations, age, sex, and in the South, color.

the relationships between income distributions by industry, by functional source, and by groups of income-receiving units (*i.e.*, "personal" distribution).

In the pages that follow several sets of data on income distributions in the United States will be used as examples to illustrate the advantages and limitations of different types of graphs and related statistics of income distribution.

I. *Graphic Analysis of Consumer Incomes: 1935-36, 1941, and 1942*

Income data for the United States for 1935-36, 1941, and 1942 have been used as the raw material for the first steps in this experiment with graphic analysis of personal income distributions. These data have been plotted on several types of graphs. The figures used on all graphs for the year 1935-36 are given in the table; other tables will be omitted in order to conserve space.

Pareto-type Chart

Pareto plotted on double logarithmic paper the number of income-receiving units with incomes equal to or exceeding each designated size of the income. Income size is measured on the horizontal scale, number of income-receiving units on the vertical scale. It is a cumulated curve, showing the number of income-receiving units with incomes of \$100,000 and over, of \$10,000 and over, of \$1,000 and over, etc.

In Figure 1 the percentage of income-receiving units with incomes above each designated size is plotted on double logarithmic paper against the size of the income. This differs from a standard Pareto chart only in the use of percentage instead of actual numerical figures for the number of consumer units; this procedure makes no change in the shape of the curve, but it puts all distributions on the same basis regardless of the size of the population involved. The 1941 and 1942 data are available up to the \$10,000 income level; only the 1935-36 distribution carries details beyond that point.

What does this graph tell us? First, it is evident that the curve begins to straighten out only at a point above \$2,000 in each case, and some curvature continues to at least the \$5,000 point. This is to be expected since the Pareto formula was developed in the first place as a description only of the high income tail of the distribution.³ A con-

³ Pareto suggested (in his *Cours d'économie politique*, Lausanne, 1897) the formula $\log N = K - \log x$, where x is the size of the individual's income and N is the number of income receivers having that income or larger. It implies that plotting N against x on double-logarithmic paper gives a straight line with the slope α . This formula was tested against data for the distribution of taxed incomes in many countries and at many times. In contrast to the Gini and Lorenz methods, to be discussed subsequently, the Paretian formula takes no account of income aggregates.

DISTRIBUTION OF INCOME AMONG CONSUMER UNITS IN THE UNITED STATES, 1935-36

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Income Class	No. of Consumer Units	% of Consumer Units	% of Consumer Units Cumulated from Low Incomes Upward	% of Consumer Units Cumulated from High Incomes Downward	Aggregate Income (in thousands)	% of Aggregate Income	% of Aggregate Income Cumulated from Low Incomes Upward	% of Aggregate Income Cumulated from High Incomes Downward
Under \$	2,123,534	5.38	5.38	100.00	\$ 294,138	0.5	0.5	100.0
250-500	4,587,377	11.63	17.01	94.62	1,767,363	3.0	3.5	99.5
500-750	5,771,960	14.64	31.65	82.99	3,615,653	6.1	9.6	96.5
750-1,000	5,876,078	14.89	46.54	68.35	5,129,506	8.7	18.3	90.4
1,000-1,250	4,990,995	12.67	59.21	53.46	5,589,111	9.4	27.7	81.7
1,250-1,500	3,743,428	9.49	68.70	40.79	5,109,112	8.6	36.3	72.3
1,500-1,750	2,889,904	7.32	76.02	31.30	4,660,793	7.9	44.2	63.7
1,750-2,000	2,296,022	5.82	81.84	23.98	4,214,203	7.1	51.3	55.8
2,000-2,250	1,704,535	4.32	86.16	18.16	3,602,861	6.1	57.4	48.7
2,250-2,500	1,254,076	3.18	89.34	13.84	2,968,932	5.0	62.4	42.6
2,500-3,000	1,475,474	3.73	93.07	10.66	4,004,774	6.8	69.2	37.6
3,000-3,500	851,919	2.16	95.23	6.93	2,735,487	4.6	73.8	30.8
3,500-4,000	502,159	1.27	96.50	4.77	1,863,384	3.1	76.9	26.2
4,000-4,500	286,053	0.72	97.22	3.50	1,202,826	2.0	78.9	23.1
4,500-5,000	178,138	0.45	97.67	2.78	841,766	1.4	80.3	21.1
5,000-7,500	380,266	0.96	98.63	2.33	2,244,406	3.8	84.1	19.7
7,500-10,000	215,642	0.55	99.18	1.37	1,847,820	3.1	87.2	15.9
10,000-15,000	152,682	0.38	99.56	.82	1,746,925	3.0	90.2	12.8
15,000-20,000	67,923	0.17	99.73	.44	1,174,574	2.0	92.2	9.8
20,000-25,000	39,825	0.10	99.83	.27	889,114	1.5	93.7	7.8
25,000-30,000	25,583	0.06	99.89	.17	720,268	1.2	94.9	6.3
30,000-40,000	17,959	0.05	99.94	.11	641,272	1.1	96.0	5.1
40,000-50,000	8,340	0.02	99.96	.06	390,311	.7	96.7	4.0
50,000-100,000	13,041	0.03	99.99	.04	908,485	1.5	98.2	3.3
100,000 and over	5,387	0.01	100.00	.01	1,095,544	1.8	100.0	1.8
Total	39,458,300	100.00			59,258,628	100.0		

Source: U. S. National Resources Committee, *Consumer Incomes in the United States, 1935-36* (Washington: Govt. Printing Off., 1939). Data for Columns (2) and (6) are given on p. 189. All others were computed for this table.

siderable majority of consumer units had incomes below \$2,000; more than 90 per cent had incomes below \$5,000 in all three distributions. A straight line is far from a perfect fit to the 1935-36 distribution even in the income range above \$5,000. This graph, however, has certain uses regardless of the degree of fit to a Pareto equation.

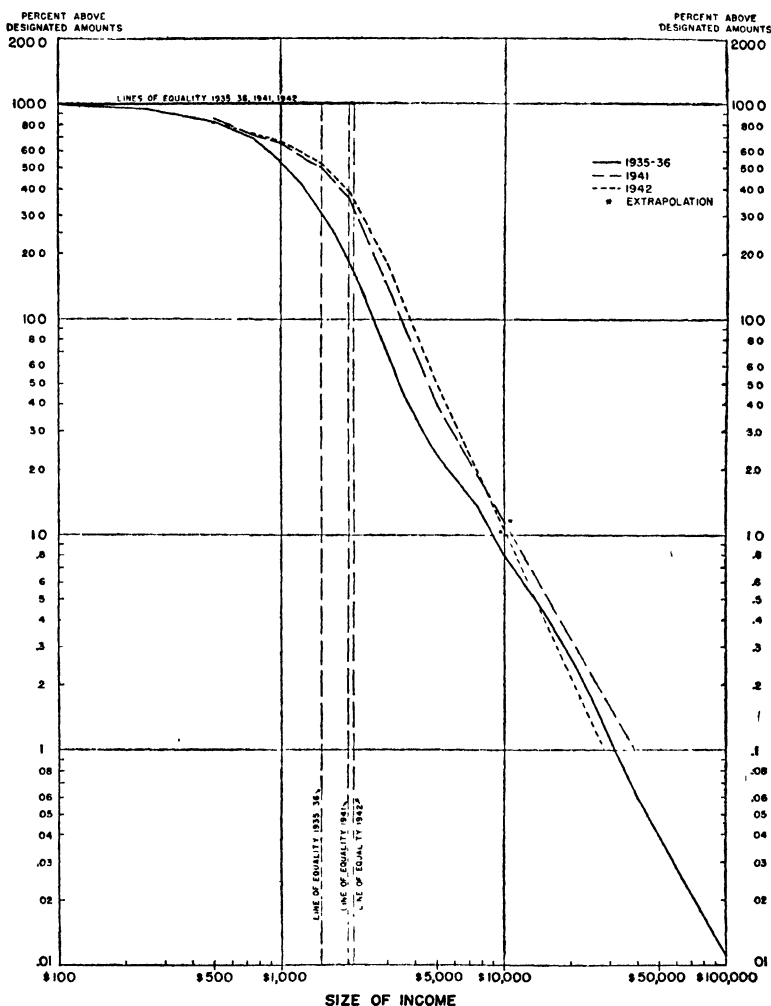


Fig. 1—Pareto-type Income Curves; Percent of Consumer Units with Incomes Above Designated Amounts, U. S. Incomes, 1935-36, 1941 and 1942

(Source: 1935-36, see Table; 1941 and 1942, unpublished data of the U. S. Bureau of Labor Statistics)

It is possible to read off Figure 1 approximately the percent of income-receiving units with incomes above any given level. Conversion to percents makes it possible also to ascertain from the graph the relative importance of consumer units with income below any given level. Thus, reading up the left-hand side of the graph, it is apparent that about 31.3 per cent of consumer units had incomes of \$1,500 or more in 1935-36; and conversely, reading down the right-hand side of the graph, it is apparent that about 68.7 per cent of consumer units had incomes of \$1,500 or less in 1935-36. By replacing the percentage markings for each curve with the corresponding number of consuming units, an orthodox Pareto graph is obtained for each set of data. It is then possible to read off the graph the actual number of consuming units in any given distribution that have incomes equal to or above any given level. The emphasis, however, is on the upper 30 per cent of income receivers; and the most accurate readings from the graph are to be made for these higher income ranges.

There has been some confusion as to the meaning of the slope of a Pareto curve as an index of the degree of inequality in the distribution of incomes. Pareto himself originally stated that the less the slope of the curve, the more equal the distribution. Statisticians since that time have usually taken the opposite interpretation, though some argument on the point has persisted. The difficulty arises in part from the fact that as an hypothetical income distribution approaches complete equality the plotted points approach a horizontal line up to the mean income and a vertical line at the mean. These lines of perfect equality have been drawn in on Figure 1.

Is the approach to perfect equality then to be represented by an approach to a vertical or a horizontal position? The answer is evident. For the part of the distribution that is fitted by the Pareto formula, that is the upper tail, the steeper the slope the more nearly equal the distribution. On the other hand, for that part of the distribution that lies below the arithmetic mean income, the less the slope the more nearly equal the distribution of incomes. Herein lies one of the fallacies of using the Pareto " α "—the slope of the curve—as a measure of degree of inequality for an entire income distribution. So used it is self-contradictory, quite aside from the fact that it is mathematically unsound to apply such a coefficient to a distribution that fails to fit well the line described by the Pareto formula (*i.e.*, a straight line on the Pareto chart).

The forms of the three curves of Figure 1 may now be interpreted in the light of these remarks. The distributions for 1941 and for 1942 appear to be very much alike in form throughout the range for which data are available although the 1942 distribution drops a little more

sharply in the high income range. The average slope of the 1935-36 curve in income ranges below the mean for that year is steeper than the slopes of the curves for 1941 and for 1942 below their respective means. The extrapolated 1942 data show a steeper slope in the high income range than do the 1935-36 figures, and these in turn drop off more rapidly than the extrapolated 1941 figures; it is evident that the extrapolations are too uncertain to justify any conclusions as to the comparative slopes of the underlying distributions for the three periods.

One other feature of these modified Pareto graphs should be noted before turning to other graphic presentations. The percent of income receivers in any given income range may be read directly from the graph by subtracting the percent with incomes at or above the higher level, say \$3,000, from the percent with incomes at or above the lower level, say \$2,000. In the 1935-36 distribution, the graph shows approximately 7 per cent (to be exact, 6.93 per cent) of consumer units receiving incomes of \$3,000 or more and roughly 18 per cent (*i.e.*, 18.16 per cent) with incomes of \$2,000 or more. The difference, 11 per cent, must have received incomes between \$2,000 and \$3,000.

Finally, the fact that the three curves approach each other in the lower income levels indicates the differential effects of changes in the level of business activity on income receivers in different parts of the total income distribution.

Gini-type Chart

Corrado Gini's contributions to the mathematical analysis of personal income distributions are unfortunately not so well known as is Pareto's work; but as far back as 1908 Gini was working along similar lines. In contrast to Pareto, he took account not only of the numbers of incomes above given levels, but of the aggregate of incomes received by those above any given point.⁴

The lower part of Figure 2 is based on Gini's analysis, modified by the use of percents instead of absolute figures. It is like Figure 1 except that the percent of families has been plotted against the percent of *aggregate* income received, instead of against the size of the *individual* income. Income aggregates should be read from right to left. Thus in 1935-36 the highest one per cent of the income receivers had 15 per cent of the aggregate income, the highest 10 per cent had 34 per cent of the

⁴For a concise discussion of Gini's formula and its relation to Pareto's formula, see Gini's paper delivered before the Cowles Commission in 1936, "On the Measure of Concentration with Especial Reference to Income and Wealth."

Gini uses the formula $\log N = p + \delta \log A_x$, where x is the size of an individual income, N is the number of income receivers with incomes of x or more, and A_x is the aggregate income above the level x .

aggregate income, the highest 50 per cent had 80 per cent of the aggregate income, etc. The conversion of the actual figures into percents in no way changes the character of the distribution; but its

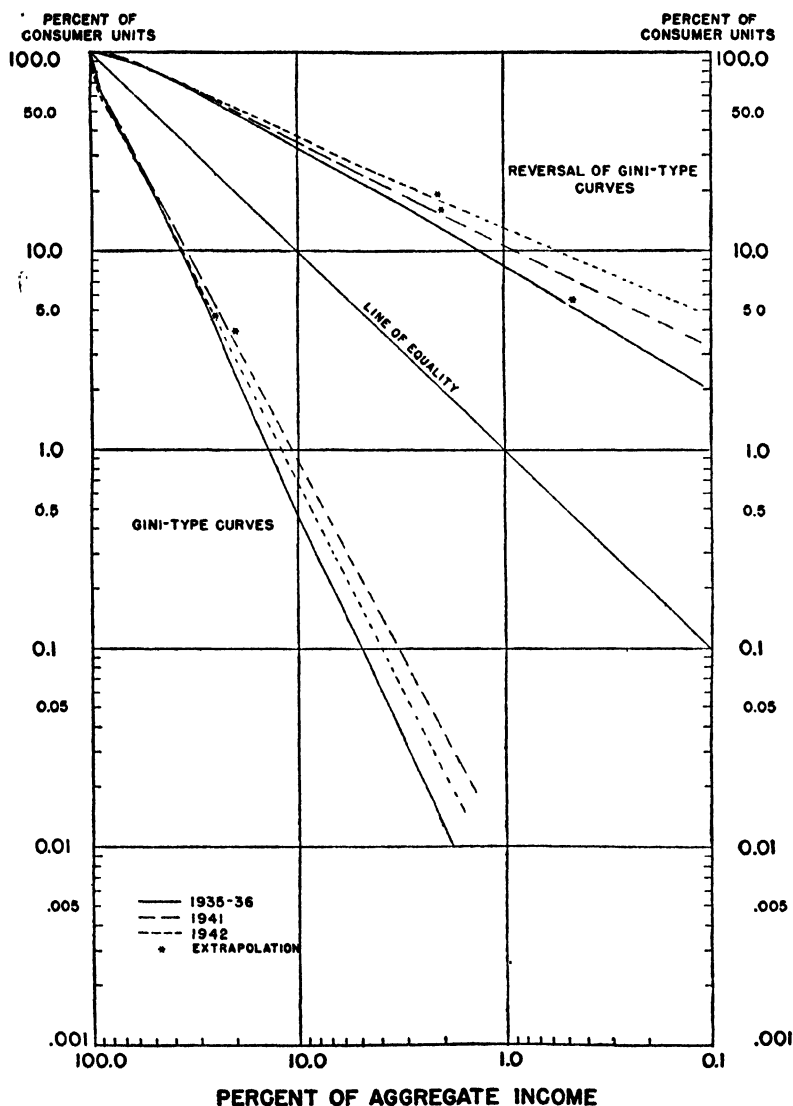


Fig. 2—Gini-type Income Curves and Reversal of Gini-type Curves, U. S. Incomes, 1935-36, 1941 and 1942

(Source: 1935-36, see Table; 1941 and 1942, unpublished data of the U. S. Bureau of Labor Statistics)

meaning is more clearly shown, as is the relation between the Gini formula and the Lorenz approach, to be discussed below. It is immediately evident that the plotted points lie on a straight line except at the lowest income levels. The Gini formula describes the income distribution down to a much lower income level than is adequately described by a Pareto formula.⁵

The slope δ of the line in the Gini formula has been used, like Pareto's α , as an index of the degree of inequality in the distribution of incomes. Conversion of the original data into the percentage form makes possible a direct comparison between the distributions in relation to a single line of perfect equality. A perfectly equal income distribution would imply that any 10 per cent of the income receivers would have 10 per cent of the aggregate income, that any 20 per cent would have 20 per cent of the aggregate, etc. Such a distribution would be represented by a straight line drawn at a 45 degree angle. An approach to equality would involve an approach to this 45 degree line. According to this interpretation, the less the slope of the Gini curve, the more nearly equal the distribution of income would be. There is a clear distinction between the three curves of the lower section of Figure 2. The steepest slope, indicating the most unequal distribution, is shown by the 1935-36 data; the least slope by the 1942 distribution. The contrasts between 1935-36 and the other two years is more evident on this chart than in Figure 1, illustrating the greater sensitivity of Gini's δ .

Criticism of the Pareto Coefficient

In view of the extended discussions and disputes that have focused around the Pareto coefficient α , it is appropriate at this point to emphasize the already existing evidence as to its inferiority for the measurement of degrees of inequality.

The values found by Pareto for the slope of his line, α , were close to 1.5, and Pareto concluded that there was a similarity of income distributions in various countries and ages not only in the form of the distribution but also in the degree of "concentration" or "inequality." These conclusions have been taken very seriously by many of his followers down to the present day. H. T. Davis even goes so far as to explain the French Revolution on the basis of departures of the income distribution from the Pareto slope of 1.5.⁶

⁵This is indeed not surprising, since the Gini line is one of those curiosities in statistics, the correlation of a thing with part of itself—in this case the sum of a set of numbers and a weighted sum of the same numbers. The Lorenz approach also involves such a relationship. (Furthermore, the Gini line, like the Pareto line and the Lorenz curve, involves an element of serial correlation.)

⁶Harold T. Davis, *The Analysis of Economic Time Series*, Cowles Commission for Research in Econ., Monog. No. 6 (Bloomington, Principia Press, 1941), chap. 9.

In 1933 Dwight Yntema ranked seven sets of income data according to the comparative degree of inequality of each series as shown by each of eight statistical measures of inequality.⁷ On the combined grounds of sensitivity to differences between income distributions and stability under different groupings of class intervals for data from a given distribution Dr. Yntema selected as the "best" measures, first the mean deviation referred to the arithmetic mean, and then the coefficient of variation referred to the arithmetic mean and the coefficient of variation referred to the "standard attribute." He throws out the Pareto coefficient as both insensitive and unstable.⁸ Yet this study of Yntema's seems to have had little effect in shaking the faith of Paretian devotees.

Gini's attack on Pareto, in a paper delivered before the Cowles Commission in 1936, should have been sufficient to dispell for all time the notion that Pareto has proven a given degree of inequality to be characteristic of even those distributions included in his investigations. And this same paper should certainly have caused users of the Paretian coefficient of inequality to pause and consider their procedures. In discussing his coefficient δ , Gini stated that: "As a matter of fact, a variation of δ between 2 and 6 means that one half of the total income is possessed by a fraction of the taxpayers that varies between $\frac{1}{4}$ and $\frac{1}{64}$. Pareto arrived at the opposite conclusion because of the very limited sensitiveness of α , which he did not perceive. In fact, he found values of α ranging from 1.9 (Prussia, 1852) to 1.1 (Hamburg, 1891). Theoretically these values would correspond to values of δ ranging from 2.6 to 8.6, and hence are far from justifying Pareto's conclusion about the similarity in the degree of concentration of income in various countries and ages."⁹

Reversal of the Gini Curve

We must not be too hasty, however, in accepting without qualification the Gini formula for description of the income distribution and

⁷ "Measures of the Inequality in the Personal Distribution of Wealth or Income," *Jour. Am. Stat. Assoc.*, Vol. 28 (1933), p. 423.

Dr. Yntema compared the following measures: (1) Mean deviation referred to the arithmetic mean; (2) Mean difference referred to the arithmetic mean; (3) Coefficient of variation referred to the arithmetic mean; (4) Coefficient of variation referred to the "standard attribute"; (5) Mean deviation of logarithms taken from the arithmetic mean of the logarithms; (6) Standard deviation of logarithms; (7) Pareto's coefficient of inequality, α ; (8) Gini's index of concentration δ . Gini's ratio of concentration_a was not included.

⁸ *Ibid.*, p. 395.

⁹ The paper cited above, "On the Measure of Concentration with Especial Reference to Income and Wealth." For a more detailed discussion of this point, see his article "Indici di concentrazione e di dipendenza," *Biblioteca dell'Economista*, 5 a serie, Vol. XX (1922), pp. 39-40.

his coefficient δ for the measurement of its "degree of inequality or concentration." Despite the fact that the Gini formula gives a better description of the modal range of the income distribution than is provided by the Pareto formula, it must still be recognized that the emphasis is on the behavior of the income distributions in the upper rather than the lower income levels. This is inherent in the double logarithmic treatment with cumulations from the top income groups toward the lower income levels. An experiment was therefore tried out on Figure 2, cumulating income receivers from the lower levels upward, and plotting these cumulated percents on the double logarithmic scale against the similarly cumulated aggregate incomes. Again a perfectly equal distribution would lie along a 45 degree line; but in this case the greater the departure from equality, the less is the slope of the line. The relationships between the income distributions are now exactly reversed. The 1935-36 distribution lies the closest to the line of equality; the 1942 distribution the farthest away. Viewed in terms of the character of the distribution at the lower end of the scale, it then appears that the 1935-36 distribution is the *less* unequal! Which conclusion are we to accept? The clear evidence of the lower part of the chart that the 1935-36 distribution is the most unequal, or the equally clear evidence of the upper half of the chart that it is the least unequal? The difficulty lies in the fact that one method of plotting emphasizes one part of the distribution, the other method the other part, and the two are not in this case mutually consistent. Both parts of the chart in fact tell the whole story, but the relationships are in each case obscured as the 100 per cent mark is approached. Whether the one conclusion or the other is to be accepted depends on the aspect of inequality that is regarded for any given purpose as the most significant.

Lorenz Curve and the "Concentration Ratio"

Although Pareto curves are probably the most commonly used for the description of income distributions in the upper income ranges, the Lorenz curve is undoubtedly the technique most commonly used to indicate differences in the degree of inequality of different income distributions.¹⁰ It is a simple graphic device. The cumulated percents of aggregate income are plotted arithmetically against the cumulated percents of persons receiving that income. If income were evenly distributed this would give a diagonal straight line rising from the lower left-hand corner to the upper right-hand corner of the diagram. The

¹⁰ M. C. Lorenz, "Methods of Measuring the Concentration of Wealth," *Publications of the American Statistical Association*, Vol. 9 (New Series, 1905), pp. 209-19. The same idea was introduced almost simultaneously by Gini, Chatelain, and Seailles.

convexity of the plotted curve toward the origin of the abscissa will be greater the greater the degree of inequality thus defined. This is in fact the relationship used in both parts of Figure 2, except that in Figure 2 the cumulated percents were plotted on a double logarithmic scale and the income aggregates were read from right to left. Figure 3 presents

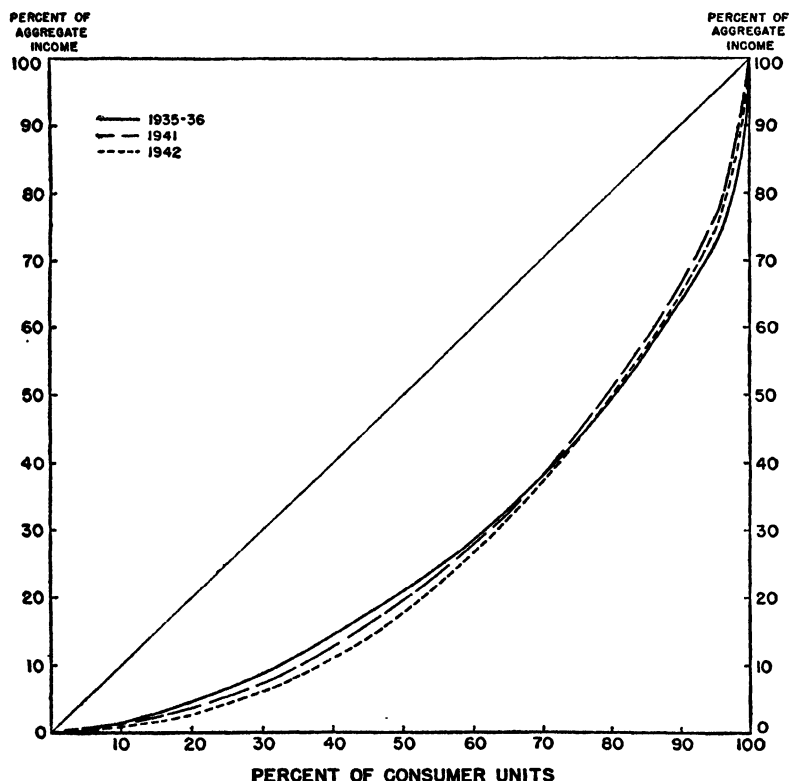


Fig. 3—Lorenz Curves, U. S. Incomes, 1935-36, 1941 and 1942

(Source: 1935-36, see Table; 1941 and 1942, unpublished data of the U. S. Bureau of Labor Statistics)

the same data plotted in a standard Lorenz distribution, on an arithmetic scale. It should not be surprising to find that the results conform closely to what is shown in both parts of Figure 2. Since the scale is arithmetic, neither end of the distribution is obscured, as in the two sets of cumulations on the logarithmic scales. Conclusions concerning the degree of inequality are again ambiguous, though the contrast between the forms of the distributions in the lower and in the upper income ranges is not so sharply emphasized as with the combined use of the Gini curve and its reversal in Figure 2.

Lorenz himself recognized the possible ambiguity in comparisons of income distributions when the curves intersect, as is the case in Figure 3. Gini turned his attention to this problem (as distinct from his logarithmic formula for the description of income distributions) in 1914. He then invented the "concentration ratio," a measure that is based on the areas outlined on a Lorenz diagram. The "concentration ratio" is the ratio of the "area of concentration" shown by the Lorenz curve to the area of maximum possible concentration.¹¹ This measure is the mean difference between the n incomes divided by twice the arithmetic average of the n terms. In view of the graphic analysis just completed on the preceding pages of this article, it is evident that the "concentration ratio" might be regarded as a compromise measure. It measures comparative degrees of inequality on the assumption that within any given distribution equal arithmetic differences in income are to be regarded as of equal importance, regardless of the size of the income. This measure has the advantage over the Pareto α and the Gini δ that it is independent of any mathematical formula to which the data must present a reasonably good fit.

The uses to which the concentration ratio has been put are numerous, especially in the work of Italian statisticians. They have included measurements and comparisons of the degrees of concentration of total incomes, labor incomes, incomes from capital, fortunes, inheritances, land property, etc., with the degree of concentration of anthropologic, biologic, and demographic characters. It is a matter of regret that few of these studies are available in English.

A Convenient Semi-Logarithmic Graph

Figure 4 is an adaptation of the Paretian approach, designed to bring out some characteristics of the income distribution in the modal ranges that remain obscured in any of the graphic forms thus far used. The number of persons with income above designated levels is again plotted against the size of the income, but in this case the vertical scale is arithmetic instead of logarithmic.¹² The plotting of percents of consumer units on an arithmetic scale has certain visual advantages. First, it is easy to tell at a glance, from the comparative distances on the vertical scale, the percentage of income receivers above any given level,

¹¹ The area of maximum concentration is the area that would be circumscribed by the Lorenz curve under the extreme condition that the total amount of income was possessed by only one individual. Gini later elaborated his "ratio of concentration" to apply to cases in which the limit of maximum concentration was defined in other ways, and something less than complete equality was taken as the equalitarian limit.

¹² This type of curve was used very ingeniously by David Durand in his article, "A Simple Method for Estimating the Size Distribution of a Given Aggregate Income," *Rev. Econ. Stat.*, Vol. XXV, No. 4 (Nov., 1943), pp. 227-30.

or conversely the percentage with incomes below any given level. It is only necessary to look at the center of the vertical scale to find the 50 per cent mark, etc. For the same reason it is easier to determine at a glance the percent of families that fall within any given income range. From this graph it is possible also to derive a simple picture of one

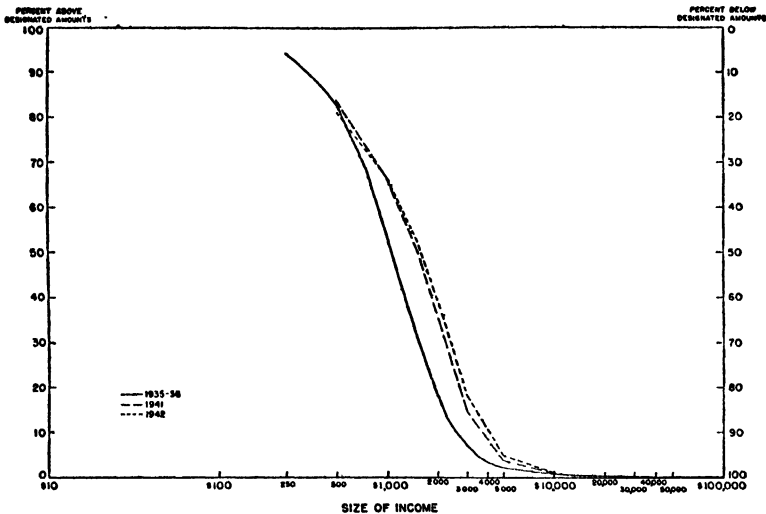


Fig. 4—Semi-Logarithmic Income Curves; Percent of Consumer Units with Incomes Above and Below Designated Amounts, U. S. Incomes, 1935-36, 1941 and 1942

(Source: 1935-36, see Table; 1941 and 1942, unpublished data of the U. S. Bureau of Labor Statistics)

aspect of the "degree of inequality" in the distribution of incomes; the steeper the curve in any given income range, the larger is the percent of families that fall within that range. But the most fundamental difference between this semi-logarithmic graph and the double logarithmic treatment in the Pareto chart is the increased clarity of the picture for the modal and lower income groups. The chart shows clearly the character of the distribution down to the lowest 5 per cent or even 2 per cent of income receivers. It is at the same time, and for the same reason, inadequate for the presentation of the upper part of the income distribution. The values of this graphic technique will be illustrated further with other sets of income data.

II—*Experiments in the Graphic Analysis of Income Distributions by Occupational and by Racial Groups*

That the distributions of incomes in various occupational groups are

significantly different is generally recognized, but the nature of the differences has received only limited attention. Such data are plotted here in Figures 5 and 6, for the United States in 1935-36 and for Minnesota in 1938-39 respectively. For the study of these relationships a Pareto distribution (and to a lesser extent the Gini chart) is clearly

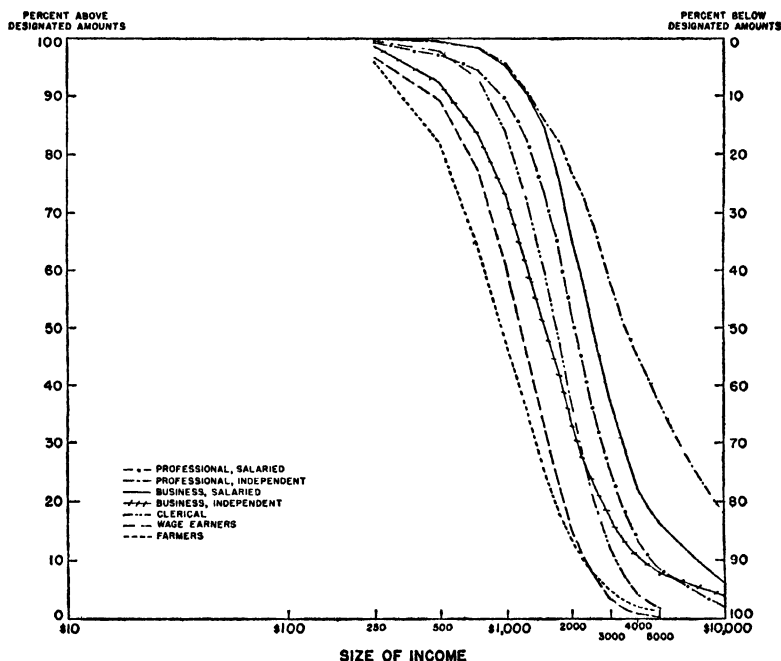


Fig. 5—Percent of Nonrelief Families with Incomes Above and Below Designated Amounts by Occupational Groups, U. S. Incomes, 1935-36

(Source: Derived from U. S. National Resources Committee, *Consumer Incomes in the United States, 1935-36*, Table 10, p. 26.)

unsatisfactory because of its emphasis almost exclusively on the high income tail. The semi-logarithmic graph introduced in the preceding section has been used, plotting the cumulative percent of households on an arithmetic scale, the size of income attained or surpassed by any given percent of families on the logarithmic scale. For incomes below \$250 and above \$7,500 the curves are free-hand extrapolations. The results are exceedingly interesting, both in subject matter and as illustrations of the usefulness of this type of chart.

In turning first to the U. S. data (Figure 5), the curves for salaried and independent professional and for salaried and independent business households command our attention. The incomes of independent

professionals are the largest of any group and show the greatest spread. Next in order of magnitude in the modal range of the distributions are the incomes of salaried business men; and these incomes are closely paralleled in the form of the distribution by those of salaried professionals, though at a somewhat lower level throughout. Independent

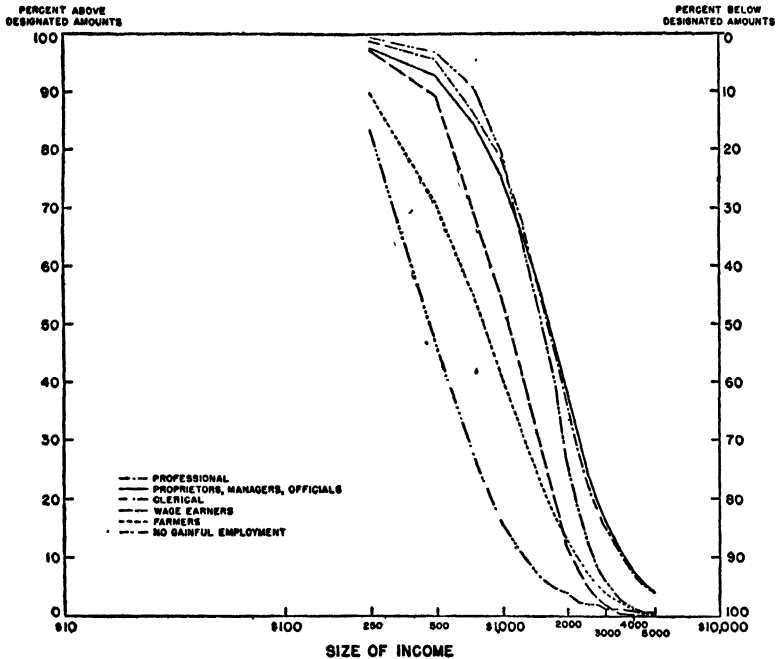


Fig. 6—Percent of Consumer Units with Incomes Above and Below Designated Amounts by Occupational Groups, Minnesota Incomes, 1938-39

(Source: Derived from Minnesota Resources Commission, *Minnesota Incomes 1938-39*, Table 10, pp. 123-27.)

business men, like independent professionals, have widely differing incomes; but the modal group is at a very much lower level, even below a large proportion of the clerical group. On the other hand, the distribution for independent business men tails out at a slope that no doubt carries these top incomes well above those of the top group of professional salaried people. The highest frequency of both clerical and independent business incomes is in the range between \$1,000 and \$3,000; but whereas only 53 per cent of independent business men's families receive incomes between \$1,000 and \$3,000, 73 per cent of clerical families fall within this income range. Wage earner incomes

are almost as concentrated within a limited income range as are those of clerical families, but at a lower average level.

The Minnesota data are given in Figure 6. No distinction is made in these data between salaried and independent professional families, or salaried and independent business families, but it is evident that the spread of incomes at the top is less for these groups in Minnesota than in the whole of the United States. The marked concentration of clerical incomes (and to a less extent of wage-earner incomes) within a limited range is again evident. The chart shows further that low income families (below \$1,000) are proportionately less common among the clerical than among the professional and business groups. The Minnesota data are of particular interest, however, because they include a category of "non-earners." The distribution of incomes in this group is extremely uneven, tailing out indefinitely in the highest income ranges while at the same time a much larger proportion of consumer units in this group have total incomes under \$500 and even under \$250.

Lorenz Curves of Distributions by Occupational Groups

Since no figures on average or aggregate incomes by occupational groups are available for the United States in 1935-36, it is impossible to present these data in a Lorenz curve form. Lorenz distributions for the Minnesota data are, however, given in Figure 7. A comparison between the picture shown by the Lorenz curves and the semi-logarithmic cumulative distributions reveals some interesting facts concerning the data and the nature of the two graphic techniques. The concentration of clerical incomes in a limited income range, as shown by Figure 6, is reflected in the fact that the Lorenz curve for these income-receiving units lies the closest to the "line of equality." The wage-earner distribution is, consistently, next. The very slight distinction between the professional and business groups as shown in Figure 6 becomes more clear-cut on the Lorenz diagram, reflecting in all probability some differences in the high income tails of the distributions that are not shown in Figure 6. Figure 6 indicates that the distribution of farm incomes is definitely more spread through the modal ranges than are those of business and professional groups; but here a difference in the high income tails (which is evident even on Figure 6) must explain the picture shown on the Lorenz diagram. The Lorenz curve for farm incomes does, in fact, cross that for professional incomes, lying farther from the "line of equality" in the lower part of the distribution, significantly closer to it in the upper ranges.

Most striking of all is the distribution of incomes of households of non-earners. It cuts three of the other Lorenz curves, swinging far to the right at the upper income end. The effect of the high income tail,

inadequately shown on Figure 6, is here extremely evident—as is the concentration of a large proportion of non-earner families in the lowest income brackets. Whether the distribution of incomes received by non-earners should be regarded as more or less “unequal” than the distribution of business incomes will depend on the aspect of inequality that

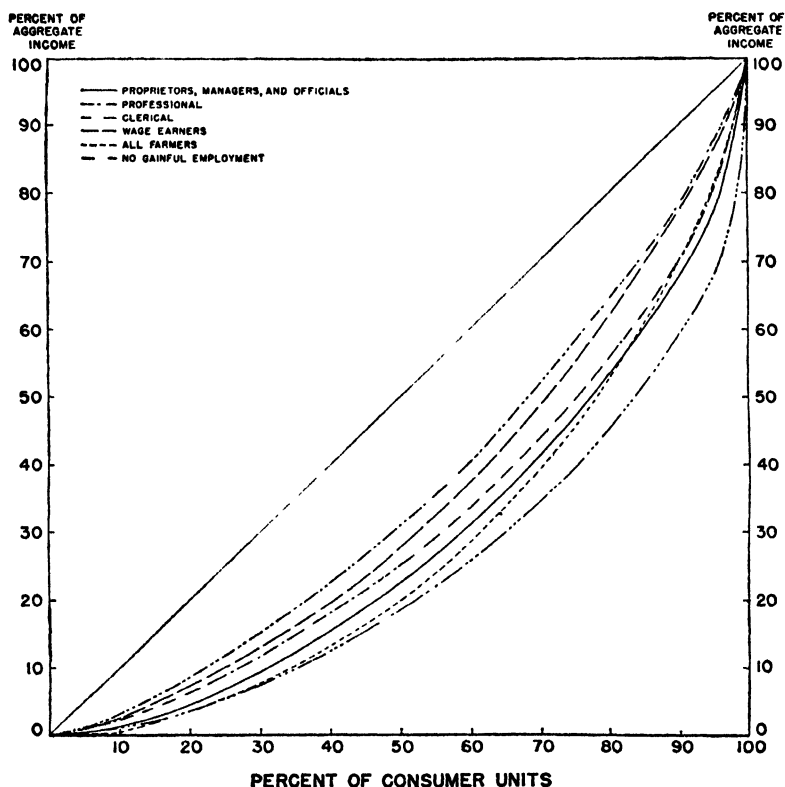


Fig. 7—Lorenz Curves of Income Distributions by Occupational Groups, Minnesota Incomes, 1938-39

(Source: Derived from Minnesota Resources Commission, *Minnesota Incomes, 1938-39*, Table 10, pp. 123-27.)

is of most interest. On visual inspection it would appear that the area inside the business income curve is slightly larger than that inside the curve of incomes of non-earners; the Gini concentration ratio should then be larger for the business group. On the other hand, (1) the spread of incomes in the ranges of highest frequency, as shown on Figure 6, is much greater for the non-earners; (2) it is clear from Figure 6 that, were a Pareto curve to be drawn, the slope of the

high income tail would be less for this group, indicating greater inequality in the distribution of income among non-earner families; (3) the Lorenz diagram itself indicates that the highest 10 per cent of income receivers in the non-earner group hold 38 per cent of the aggregate income, whereas the highest 10 per cent of the business men hold

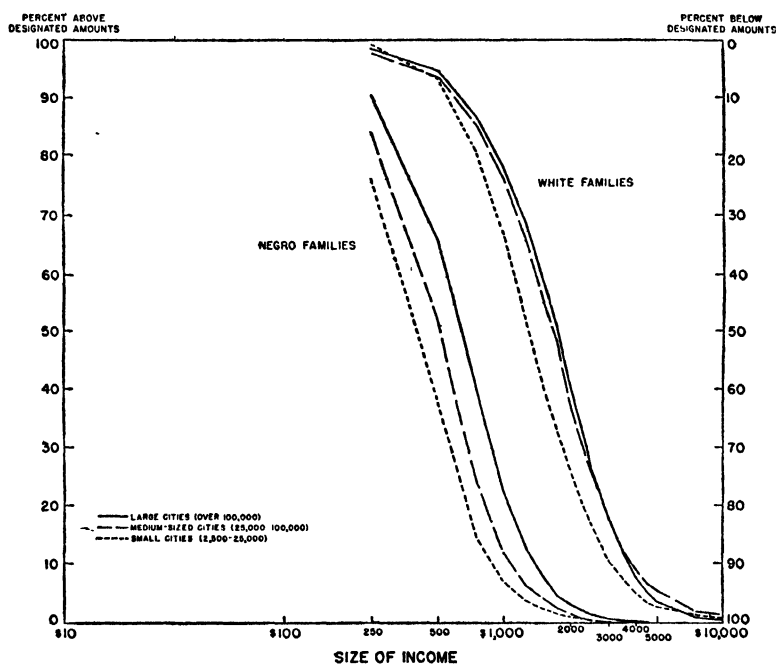


Fig. 8—Percent of Nonrelief Families with Incomes Above and Below Designated Amounts, White and Colored Families in Southern Cities, United States Incomes, 1935-36

(Source: Derived from U. S. National Resources Committee, *Consumer Incomes in the United States, 1935-36*, Table 21-B, p. 100.)

only 32 per cent of the aggregate income of their group; (4) it is evident from the Lorenz curve that a Gini chart of the distribution of incomes among non-earners would show a steeper slope, hence greater inequality, than in the case of the distribution of incomes among households of business men. Other than the concentration ratio, the only other measure, thus far discussed that would support the thesis that distribution among non-earners was more equal than among business men is the reversal of the Gini chart (as in Figure 2), cumulating aggregates from the lower income ends; that this would be the case

is again evidenced by the Lorenz curve itself. These contrasts bring out vividly the ambiguity in the concept of "inequality."

Most mathematical and statistical experimentation with personal income distributions has focused on the characteristics of any given distribution rather than on the relation between income distributions among different categories of the population. Concepts of inequality have referred to the characteristics of a given distribution. There is, however, another framework in which inequality may be considered, the inequality between the incomes of distinctive groups of the population. This is illustrated in part by the positions of the curves in Figures 5 and 6; but it is most vividly portrayed by a graphical analysis of incomes of white and Negro families in the South.

Figure 8 presents such a comparison, again as a cumulative distribution on semi-logarithmic paper. The three curves to the right are distributions of incomes of white households in three sizes of cities; those to the left are distributions of incomes of colored households in the same cities. The shapes of these curves are very similar for all groups, except that the incomes of white households tail out at the upper income end to a significantly greater extent. The striking thing about the graph is the great distance between the two sets of curves, white and Negro. Throughout the modal range the horizontal distances between the curves are almost constant. Any given percentile of the white population in large cities is at or above roughly 2.6 times the level attained by the same percentile of the Negro population. In the small cities the difference is even greater; the graph indicates ratios of over 3.0.

III. *Conclusion*

Two basic types of information are important in the analysis of personal income distributions: (1) the general level of living that such distributions may indicate, and (2) the shape of the distribution. This question of shape is not merely a matter of "degree of inequality or concentration," however measured, but of the particular character of the disparities in incomes. Allyn Young, in 1917, approached this problem with his usual perspicuity, and his words will bear repeating:

The degree of departure from absolute equality, however measured or stated, must itself be referred, if not explicitly, then in some vague way, to a standard of normal or justifiable concentration. A dead level of uniformity is neither practicable nor desirable. . . .¹⁸

¹⁸ Allyn A. Young, "Do the Statistics of the Concentration of Wealth in the United States Mean What They are Commonly Assumed to Mean?" *Jour. Am. Stat. Assoc.*, Vol. XV, New Series, No. 117 (Mar., 1917), pp. 471-84.

And some pages later he argues that:

The amount of concentration, the amount of departure from a condition of uniform incomes, does not matter so much as does the particular form of the income distribution underlying the concentration. . . .

The worst thing in the present situation is undoubtedly the extreme skewness of the income frequency curve. . . . The problem of poverty and the problem of great fortunes are the problems of the lower and upper limits of this income curve. . . . The most serious aspect of the distribution of property and incomes in this and other countries is not the presence of a larger or smaller degree of "concentration," but the general distortion of the whole income scheme, reflecting as it undoubtedly does the presence of a high degree of inequality in the distribution of opportunity.¹⁴

The methodological import of Young's discussion was simple. He argued that simple frequency distributions are far more useful and much less misleading than any coefficients of inequality or any formulas purporting to describe an income distribution. He went one step further and urged the use of the Pearsonian system of curves and of measures of dispersion.

We cannot go along with Young in his attachment to the Pearsonian system of frequency analysis for the interpretation of personal income distributions. Even when plotted on a semi-logarithmic graph, a non-cumulative distribution is a less useful device than the cumulative distributions discussed in this article; this point hardly requires argument at the present date. But in one respect Young was fundamentally sound. A frequency distribution of some type is a far simpler and more complete basis for the interpretation of income data than is any collection of the most commonly used coefficients or formulas.

It is equally true that any single graphic device is incomplete.

A Pareto chart is of distinctly limited usefulness in the middle and lower income ranges, and its meaning is not readily comprehended; yet it has proven an extremely valuable device in the study of income distributions within the higher income ranges. A Gini chart has the special advantage that it permits both extrapolation and interpolation for the upper income ranges starting from a lower point than would be admissible on a Pareto chart. It provides also a picture of the distribution of the aggregate income of a society among its members, an aspect of income distribution that is not revealed by a Pareto chart. On the other hand, the Gini chart is somewhat more complex in the concepts involved; it cannot be translated directly into an ordinary type of frequency distribution; and to plot such a chart it is necessary to have facts concerning the distribution of the aggregate income that

¹⁴ *Jour. Am. Stat. Assoc.*, Vol. XV, New Series, No. 117.

are not needed for the construction of a Pareto graph. Finally, the Gini chart shares with the Pareto, though to a less extent, an emphasis on the upper income levels that obscures relationships at the lower end of the income scale. Gini graphs are far more useful when expressed in terms of percents than when given in absolute figures. When the problem under consideration requires special emphasis on the higher income tail of the distribution, the choice between the Gini and the Pareto curves will depend on the character of the data and the particular facts that may be of most interest to the investigator.

A reversal of the Gini approach, cumulating the percents of consumer units and of aggregate incomes from the lower levels upward, was plotted on a double logarithmic scale. This procedure counters the emphasis on the distribution in the high-income ranges with an emphasis on the low-income end of the distribution. Taken in conjunction with a Gini chart, it draws a sharp picture of the characteristics of the distributions at the two ends of the scale.

For most purposes, however, two types of charts of more general usefulness will provide a sufficiently complete analysis. These are the Lorenz curve and the semi-logarithmic chart used in this article. The Lorenz curve shows the distribution of the aggregate income among the members of the population, and it is a fairly sensitive indicator of inequality in so far as disparities may legitimately be weighted in terms of arithmetic differences. A careful reading of the Lorenz chart will reveal most of the relationships shown by the combination of the Gini chart and its reversal (Figure 2). But the Lorenz curve gives no clue as to the general level of incomes or the numbers or proportions of families in different income-size classifications. These facts are shown by the cumulative distribution on semi-logarithmic paper. This latter is an extremely versatile device for the description of any given distribution and for a comparison with other distributions, particularly for the middle and lower income groups. It is a mediocre method of indicating the character of the income distribution at the top; and it takes no account of the aggregate amounts of income held by various percentiles of the population.

COMMUNICATIONS

Employment Policy and Organization of Industry after the War

There is a growing trend of thought, especially prominent in Great Britain, that economic salvation after the war must be sought in state control. The main current of this opinion flows from many springs: the failure of free enterprise to maintain a reasonable level of employment between the two wars; the debacle of the thirties; the rending of the illusion that competition and self-interest will secure a desirable adjustment of supply to demand and an effective tendency toward full employment; the recognition of pervasive market imperfections and wastes (call them wastes of competition or monopoly as you will); and a complete system of war-born direct controls which public inertia, fear of the future, the vested interests of those in control and conviction as to the benefits of a planned economy now conspire to project into the post-war. These, and similar influences, have produced in Great Britain *Employment Policy and Organization of Industry after the War* (the primary subject of this paper), the Government White Paper on *Employment Policy*, the *Economics of Full Employment* prepared by members of the Institute of Statistics at Oxford, and the more imposing *Report on Full Employment in a Free Society* by W. H. Beveridge.¹ While these documents differ in the detail of their recommendations, and even more in quality of analysis and adequacy of presentation, they reflect a similar spirit and a similar conviction.

Employment Policy and Organization of Industry after the War is essentially a policy statement, a compilation of ideas and suggestions for "a new advance . . . in the control and organization of our national resources," to use Mr. G. D. H. Cole's words in the Preface. This Statement, as a compromise among the varying opinions of the 33 Conference participants, suf-

¹ Unless specifically noted to the contrary, all page references in this paper are to *Employment Policy and Organization of Industry after the War*, a Statement Deriving from a Conference at Nuffield College, England, in May, 1943. (London: Humphrey Milford, Oxford University Press, 1943, pp. 70, 2s. net). References to the "Conference" or to the "Statement" denote this document. While no attempt has been made to reflect the shifting and more guarded shades of opinion in the subsequent publications noted, the aspects of the Statement selected for comment are sufficiently common (if implicit) to the general approach to warrant more careful consideration than the Statement itself might justify. The Government White Paper on *Employment Policy* least reflects the viewpoint here under discussion.

For a more sympathetic treatment of the British approach to post-war employment, see Arthur Smithies, "Full Employment in a Free Society," *Am. Econ. Rev.*, Vol. XXXV, No. 3 (June, 1945), pp. 355-67. I shall have occasion to refer to this review of the Beveridge Report in the course of this analysis.

fers inevitably from the multiplicity of its origins. It is not a set of conclusions derived from any inductive analysis, to which the reader is exposed, of economic forces underlying business fluctuations and unemployment. Nor is it a deduction from stated premises or principles with which the reader might agree or disagree. It recommends a program which lodges in public authority the final control of basic economic decisions, such as the direction and location of real investment, the use of corporate surplus above a reasonable return to shareholders, the determination of wages and prices, etc. But, at the same time, it pays lip service to the importance of flexibility and efficiency in production and to the vital need for vigorous private enterprise and coöperation between management, labor, and the state.

At the risk of misrepresenting the real position of the Conference, I have focused attention on the controls which are recommended rather than on observations with respect to the desired operation of the economy which may or may not be consistent with those controls. And I have directed my comments primarily to the implications of, and the necessity for, those controls rather than to the structure of administrative agencies through which it is proposed that they be exercised. Finally, because of the breadth of the subject and the limitations of space, I have concentrated on the central ideas of the Statement even though this procedure magnifies the scope of apparent disagreement.

I. *The Objective: Full Employment*

The Conference seeks "the achievement of the nearest possible approach to 'full employment' at a high and steadily rising standard of living" (p. 10). By "full employment" is meant a situation in which "the number of unfilled vacancies is not appreciably below the number of unemployed persons." This is inherently a more reasonable concept than the more explosive Beveridge formulation in which the number of jobs offered *exceeds* the number of those seeking employment. But in the absence of any consideration of the composition of the unemployed, of the nature of the costs of reducing the level of unemployment, or of the significance of the phrase "the nearest possible approach," the objective can hardly be appraised.

A clear definition of the full employment goal is crucial for understanding and for intelligent decision of the issues raised. There can be no quarrel with the conclusion that "the government in running its own affairs, cannot ignore the effects of its actions on the capitalistic system."² In this sense, if no other, the government must accept responsibility for the formulation and carrying out of a full employment program. If the policy goal is to induce high employment levels without inflation, prevent major fluctuations in employment and assure economic security through comprehensive unemployment insurance and social security, this responsibility of the state can probably be discharged within the framework of its traditional peacetime powers without substantive modification of the free enterprise system. But if the goal is a *guarantee of jobs* (as opposed to income security) for all those

² A. Smithies, *Am. Econ. Rev.*, Vol. XXXV, No. 3, p. 366.

who may seek employment, only a state of greatly expanded peacetime powers can assume responsibility. The higher the employment goal established and the smaller the variations of employment around this goal considered tolerable, the more sweeping must be the direct controls exercised by the state over the freedom of choice and action of business men, workers and consumers alike. The vital issue, therefore, is how much added security of employment is worth what amount of sacrifice of that freedom of individual action which we have come to identify with the American way of life. History suggests that this calculus is only partially economic.³

The Conference failed even to consider this subject. If this implies that any increment of employment up to "full employment" is worth the sacrifice of any amount of freedom of action or choice, the conclusion certainly needs demonstration. But if this is not its position, the scope and detail of the controls recommended are greater than a more modest purpose would require.

II. *Maintaining Full Employment by Controlling Investment*

Without attempting an analysis of the character and magnitude of underlying forces, the Conference observes that business fluctuations in the past have been accompanied by much larger sweeps in the output of capital goods than in goods destined for "day-to-day consumption." Thus "the key to dealing with the main part of the problem is to be found in measures designed to maintain investment in capital goods, including of course not only directly money-making assets but also such services and amenities as will minister to the health and well-being of the people" (p. 24).

But how can one secure the volume, direction and timing of investment in capital goods which is required to maintain full employment? Bank credit, it is suggested, should be controlled with this purpose in mind and both short- and long-term interest rates should be kept at a minimum; but availability of money and credit is no guarantee that it will be "rightly used, or indeed used at all." Public works will assure a proper direction of expenditures, but in the past public works have led to "lop-sided development" because they have operated on too narrow a base. The area of direct state control of investment, therefore, must be enlarged. Public ownership must be extended to

³ From this point of view, I find it hard to understand Smithies's enthusiastic endorsement of Beveridge's attack on the British White Paper on *Employment Policy* as merely "an anti-cycle policy, not a policy of full employment" (*op. cit.*, p. 366). Unless one believes, with the secular stagnationists, that without continuous expansion of public investment the economy is doomed to a long-run downward spiral in relative employment of resources, or in the thesis that the state should *guarantee* jobs for all who seek employment, I would have thought that a comprehensive "anti-cycle policy" was an effective pragmatic approach to the problem. Smithies apparently does not support the idea of a state *guarantee*. While he has no occasion to refer to secular stagnation, the factual evidence for this theory is at best equivocal. (See George Terborgh, *The Bogey of Economic Maturity* and further references listed by him on p. 9.)

⁴ The vital importance of international trade to a country like Great Britain is recognized by the Conference but the subject is postponed for more careful consideration in some forthcoming Statement.

industries of "key importance in the maintenance of general investment activity" as well as to those which are important because of "their basic character and the dependence on them of a wide range of other industries and of basic services vital to the consuming public" (p. 44). No classification of industries is attempted, although transport of all varieties, public utilities and basic extractive industries like coal are mentioned as likely prospects. The threshold for public ownership, however, is low; the test is whether any alternative control will "secure fully efficient operation in the public interest, or make thoroughly effective the power of the State to regulate the volume of investment" (p. 47).

State control over its own investment activities, even though extended over the more important capital-using industries, might not be enough to assure correction of the cyclical and structural defects in the economic system. It is contemplated, therefore, that the state will control *all* private as well as public investment in terms of a "list of priorities, balanced to cover the needs of the home population and of export trade, and to provide for the adequate capitalization of industry and agriculture in pursuance of a clearly conceived national plan of economic development" (p. 27).

For this purpose it is proposed that "a careful system of cost-accounting" be set up on the basis of which government may decide among alternative projects. The object is not merely to assure adequacy of aggregate financial outlays. "Government is being called on to assume the new and vital responsibility of seeing to it that the right amount of real investment shall be made" (p. 29). "Real investment" is defined as "instruments of production" for replacement as well as for additions to capital resources.

Finally, the continuing phenomenon of "depressed areas" in both prosperity and depression attests the failure of private industry to adapt itself to socially desirable locations and the inability of labor to align itself with industrial opportunities. While "nothing must be done to force firms to set up factories in areas which are economically unsuitable, or would involve high costs of production; and no rigid or inviolable limit should be set to the natural development in the more prosperous areas of the industries for which they are best suited . . . [effective measures must be adopted] . . . to influence and *control* the location of industry in the post-war period" (pp. 38-39; *italics mine*). As in other matters, apparently the state will decide, it is hoped, wisely.

Comment

In the absence of a state guarantee of the maintenance of "full employment" without regard to social cost, detailed control of real investment is an unnecessarily burdensome and restrictive method of assuring desirable high levels of productive employment.

Let us first look at the implications of this method of control. The planned control of all public and private investment (in terms of actual capital goods, not merely financial quantities), if it could be achieved, would require in effect the predetermination by government fiat of the kinds and quantities

of goods and services which consumers would be permitted to buy.⁵ Such a substitution of centralized wisdom for the decentralized choices of the market place is at least suspect in democratic countries. It would place in the government bureaucracy the power of predetermining what new ideas would and what would not be permitted to be developed. On the eve of potentially revolutionary developments in plastics, synthetics, the light metal alloys, transport, and electronics, to mention but a few, such concentration of economic power could be stifling. New ideas seldom spring fully developed from the minds of their originators, and public servants are notoriously conservative.

It might be objected that the development of an over-all system of priorities supported by relative cost analysis would avoid most of the dangers I fear. But the concept of an over-all system of priorities *in peacetime* to control all real investment is either naïve or authoritarian. Neither "over-all priority" nor its alter ego "social utility" can be given concrete, objective content as a guide to public action.⁶ In time of war, a system of priorities is a necessary evil. It is also a fairly rational method of control because the bulk of the preferences granted are determined by the overriding needs of war (direct and indirect). In the residual civilian area, discretion is reduced to a comparison of minimum essentials. Even in wartime, however, the operation of such a system is halting, cumbersome and charged with inescapable discriminations. But as soon as materials, facilities and manpower available exceed minimum essential civilian needs, the basis for rational judgment at the margin disappears. Decision necessarily becomes arbitrary, explicitly or implicitly reflect-

⁵ This conclusion is not implicit in proposals to assure an aggregate volume of investment consistent with full employment. As in the Murray bill now before the U. S. Senate, the state might estimate anticipated private investment and budget government expenditures so as to provide the combined level of investment considered necessary for full employment. This proposal raises problems of its own, but they are not our immediate concern.

⁶ This concept of "social priority" or "social utility" is also prominent in Beveridge, again with no explanation of the criteria that could be employed to give it concrete meaning as a principle of selection. Smithies takes no exception to the use of the term. Indeed, he goes Beveridge one better by proposing that the arbitrary element in Beveridge's "double-budget principle" might be avoided by choosing between increasing public expenditures or reducing taxes on the basis of comparative social utilities. At the desired level of total outlays, "the 'marginal social utility' of taxation should be equal to the 'marginal social disutility' of taxation" (*op. cit.*, p. 359).

The concept of relative social utility is not without meaning as a philosophy of government action. Within limits, it even provides practical guidance. Alternative proposals for public expenditure can be appraised roughly in terms of their relative social value. In terms of the incidence of the tax structure, a presumption may even be established that projects so chosen are worth more than the incremental loss to the taxpayers as long as aggregate government expenditures are small. But this conviction is dissipated as the volume of public expenditures increases relative to national income and it vanishes entirely when the principle is raised to the status of a rational marginal calculus. It is just such a calculus which is here under consideration. As a precept of administrative action, social priority or social utility merely obfuscates understanding of the issues raised by centralization of economic decisions.

ing the prejudices of the administrator or the political pressures brought to bear upon him.

The contribution of cost analysis to the planned direction of investment by a central authority is likely to prove illusory in value and impracticable in operation. The vastness of the statistical task of compilation and analysis of relative costs hardly requires emphasis. (The statistical task itself would probably go a long way toward solving the unemployment problem for members of the profession!) But the usefulness of the job is also dubious. The importance of added investment in a particular plant is not determinable from a direct comparison of added cost and the value of added product. (The authors incidentally neglect the need of a measure of benefits with which to interpret the significance of their measure of costs.) Technological and market changes may require added investment to secure the existing investment against loss or to activate it into full use. The benefits from added investment may be so intangible as to preclude direct evaluation. To derive comparability of relative costs and benefits over a broad segment of the economy, especially where joint and common costs are prominent and multiple benefits are involved, is practically an insuperable task.⁷ Final decisions would be made but it is doubtful that comparative utilities or comparative costs would have much to do with them.

These comments do not challenge the ability of the state effectively to guarantee "full employment" if it is prepared to invest directly in sufficient quantities⁸ and over a wide enough area. They do emphasize, however, that the price of the guarantee, on the terms here under discussion, is a substitution of the "wisdom" of the state for the freedom of choice of the individual, the probable sacrifice of important new products and processes to a high level of mediocrity, and the imposition of a burdensome system of central accounting and cost analysis of dubious value.⁹

If the community is willing to tolerate some measure of instability of

⁷ The real problems of cost comparability, familiar in a more simple form in "yard-stick" government competition in this country, would not be removed even though they might disappear from public view under central control of all investment.

⁸ It is striking that the Conference did not consider how Great Britain might finance an undertaking of this magnitude. It is apparently assumed that, despite the burdens of statistical reporting, of government controls of location, direction and quantity of investment as well as of prices and wages, not to mention the extension or threat of extension of government ownership, private investment will be forthcoming in such volume that no serious financial problem will arise. I am not competent to judge the temper of the British business community or of the British public; but, in our own economic milieu, a consideration of the probable impact of these proposals on the national debt, the tax structure, the rate of private investment and the enterprising spirit of the business community would seem a reasonable prologue even to preliminary judgment.

⁹ The stress laid by the Conference on state control of real investment seems radical and ill-considered as compared with the seemingly more orthodox emphasis by Beveridge on the maintenance of aggregate outlays at levels consistent with full employment. It might be assumed that I am here concerned with a "straw man." And yet, the differences in the two views may easily be exaggerated. For Beveridge would not maintain adequate outlays by tax reductions which would increase disposable incomes in the hands of consumers to be expended by them in conformity with their own judgments of relative urgency. Rather, he proposes expansion of public works and public operation of basic industries in conformity with social priorities either at the same or at higher rates of

employment, it may be possible to preserve the basic freedoms of economic democracy and still achieve desirable high levels of employment and income security. To attain and maintain aggregate markets which will provide high level employment under a free enterprise system is a difficult and, as yet, an untried task. It requires that government establish and maintain a tax system which will not stultify the willingness to assume risks; that it coördinate the control of bank credit with monetary-fiscal measures designed not only to damp inflationary pressures but also to stimulate consumption¹⁰ and private investment¹¹ when markets weaken; that it be prepared to supplement general counter-deflationary measures with a program of public works, if necessary; and that it destroy or subjugate monopoly elements (whether business or trade union) which threaten the goal by restrictive tactics. Such a program should, of course, be complemented as in the British proposal by an extended and strengthened social security system.

There can be no guarantee that a program developed within the framework of a free enterprise economy will provide the levels of employment and the standards of living considered essential in the post-war world. Selective use of direct state controls may prove indispensable. Conceivably, some form of collectivism may eventually be considered the lesser evil. But the contribution of free enterprise to our economic and social development is so great and the restriction of economic freedom is so subtly meshed in experience with the loss of political freedoms that it is no more than prudent to try to improve our own, rather than to accept blindly, a foreign way of life.

III. *The Control of Prices*

Where imperfect competition or monopolistic factors exist, the Conference believes that neither competition nor market forces can be expected to bring about desirable adjustments. Both business and the trade unions must, therefore, be governed by public codes of conduct and their actions submitted "to the scrutiny of impartial authorities representing the public interest" (p. 14). This control is suggested for wages and prices as well as decisions with respect to conditions of employment, the demarcation of trades or the volume of production. But only price control is discussed extensively.

Maximum price control is apparently expected to be practically universal. Based on mandatory uniform cost accounting, maximum prices would be set on standardized goods to allow to producer and distributor no more than a reasonable profit under efficient operation. (High-cost producers, it is suggested, should be forced out of the market by price control.) The area of standard goods, and therefore of standard price regulations, should be ex-

taxation. While Beveridge avoids some of the technical traps which ensnared the Conference, the spirit is the same and the kind of society contemplated is practically indistinguishable.

¹⁰ Such as by better credit terms or by prompt tax reductions (e.g., in withholding or in excise taxes) which increase disposable incomes. Increased consumption, of course, will itself induce increased investment (directly in inventories but also in equipment) as well as increased production.

¹¹ Special tax concessions, low interest rates and, in the case of housing, possibly guaranteed loans or outright subsidy could be justified.

panded by state "elimination of unnecessary varieties which do not really widen the consumers' choice" (p. 57). Where non-standard goods preclude the fixation of ceiling prices, Price Regulation Tribunals would be authorized to deal with allegations of unfair price. And to round off the whole, "an effective control over price-regulation and output policy in respect of agricultural as well as industrial products" (p. 61) should be established.

Comment

Price control to ward off inflation, usually supported by wage and distribution controls, is a necessary condition of economic stability during wartime. The absorption of a major portion of economic resources in war production means the creation of money incomes far in excess of the available stock and the possible new production of civilian goods and services at preëxisting price levels. The wartime control agency can and does rely heavily on a general freezing of prices at some arbitrary date. The maintenance of profit margins on particular products as cost elements change is not vital when the product is no longer produced or the firm is already subject to excess profits taxes because of its earnings from war business. As long as money income and accumulated savings in liquid form available for consumption expenditures grossly exceed production possibilities, some measure of price control may be required if inflation is to be held in check. Even after the transition from war to peace, it is conceivable that the attempt to maintain a satisfactory level of employment will so lower the threshold of inflation that selective government control over prices will have to be retained.

But the object of the Conference is not primarily inflation control. It proposes rather to secure for the public the benefits of productive efficiency through the mechanism of price control and cost appraisal. The object "should be to achieve, not so much low prices in themselves, as a reasonable relation between prices and the costs of efficient production, and between the prices charged for different kinds of goods" (p. 60). Our own experience in public utility regulation provides little basis for optimism in such a project. If prices are to be fixed by costs, the incentive to increase business income in the guise of costs has usually required a proliferation of controls which in the end may effectively substitute the judgment of the pricing authority for that of management. Combined with profit limitation, price control may lower the quality of management and discourage the search for new production opportunities and technological improvements.¹² If the size of the cake is reduced, the satisfaction of receiving a larger proportionate share may be a poor consolation for those who like cake.

Quite apart from the gigantic task of compiling and analyzing operating costs (and without regard to imponderables in interpretation), the extension of price control throughout the economy is of dubious benefit to the consumers for whose protection it is derived. Certainly, the mere existence of imperfect competition is no warrant for price control. The economists' discovery that the pure competition of his theoretical preconceptions does not

¹² Such considerations, together with the greater possibilities of realizing "external economies" not significant for the private firm, strengthen the case for public ownership and operation in industries which cannot be left to competitive forces.

exist did not alter the character of actual competition. And while there might be some dispute as to when competition first became predominantly "imperfect," it would take a good deal of proving to demonstrate that the net effectiveness of competition—in price, quality and service—was lessened by the transformation.

It cannot be said with conviction that the post-war situation will not require more direct price control than existed before the war, especially as protection against inflation. But general price control as an anti-monopolistic measure is a counsel of despair. Direct and indirect government measures to stimulate new enterprise, to induce more desirable price and production policies, to curb the scope of monopolistic practices—largely neglected by the Conference—promise greater benefits. It seems never to have occurred to the Conference that the monopolistic practices among British firms, which it deplors, may be no more permanent than the government policy which has fostered them. The only thing certain about general price control based on cost analysis is the enormous statistical and administrative burden it would entail. The danger of stultifying progressive and efficient management is imminent and the benefits to be realized are problematical.

IV. *Coöperation between Business and Government in Maintaining Full Employment*

With planning designed not merely for "general control over land-use and development" but also "to secure a right distribution of resources between different industries and services, the maintenance of the volume of investment, and the adjustment of productive capacity to the needs of home consumption and of the world market" (p. 37), a higher calibre of public servant and a more intimate coöperation between business and state are imperative. The success of the entire plan will therefore depend on getting the services of "men of the highest scientific, technical, and economic attainments" (p. 59).

Education, a closer assimilation between salary rates in public and private business and a recruitment procedure in public administration which will "encourage freedom of movement between publicly and privately administered concerns" (p. 21) are relied upon to secure proper personnel. The indispensable coöperation of business depends on the "growth of the spirit of integrity and public service" (p. 63) among industrial managers who comprise a skilled profession and, "like other professionals, can be called upon to observe a stringent code of professional conduct" (p. 21). The Conference envisages a growing allegiance of business managers to the public interest as represented by the state. In its view "the claim of capital in large joint-stock enterprises should take increasingly the form of a limited return on the amount invested, and . . . the residuary profit should be applied to schemes of capital development or welfare, including more continuous employment, *subject to the claims of the State and to State approval of the uses to which the surplus is to be put*" (p. 68; italics mine).

Comment

Few would challenge the assertion that "It is emphatically not the case that most employers, or most managers, are moved exclusively by considera-

tions of private profit" (p. 15). Most would also agree with the emphasis on management as a skilled profession and a key factor in developing policies compatible with the necessary conditions of "full employment."¹³ And yet, I believe that faulty conclusions have been drawn from these observations.

The business manager may be motivated by considerations of security—security for himself or security for the corporation and the organization of which he is a part; he may desire the approbation of his professional colleagues, the confidence of his employees, the goodwill of his customers or the recognition of his community; he may seek the power and influence that come with size and leadership; or he may be dominated by the desire to make a better product or build a model plant or an efficient organization. These are powerful non-monetary drives and, within the limits of discretion available to him, the business manager may be governed by them. *But they are expressed in and through his business, on his own initiative and on his own responsibility.*

It cannot be assumed lightly that the business man would respond as effectively, or at all, in a situation in which his disposal of "residuary" profits were "subject to the claims of the State and to State approval of the uses to which the surplus is to be put." Furthermore, the fact that business men do exercise a varying margin of discretion free from the dominance of immediate profit suggests that, under appropriate conditions, direct state control may not be required to achieve the desired results.¹⁴ The establishment by the state of a coördinated policy designed to achieve continuing high employment under free enterprise, the definition of business action conducive to the attainment of the goal, and the public recognition of private accomplishments in terms of the code of business action set up, could contribute more than any amount of coercion toward realization of the objective.

Even if the harried ranks of the Civil Service were infiltrated by the best minds of the business, scientific and professional world, the competence of any individual or group of individuals to plan in detail the future of a great industrial economy in peacetime is undemonstrated; and the substitution of the decisions (even the wisdom) of the few for the choices of the market place may be too high a price to pay for "full employment."

V. Conclusion

The problem of "full employment" is the most crucial domestic issue before this or any other country. Its solution is vital not only for political stability and economic well-being in this country but also for the success of international coöperation in securing the future peace of the world. For that end, substantial sacrifices would be justified and they may be required. But it is neither good economics nor good social policy to give up a greater for a lesser good.

¹³ The independence of management in the determination of corporate policy is emphasized by R. A. Gordon, in *Business Leadership in the Large Corporation* (Washington, Brookings Inst., 1945).

¹⁴ This view is propounded at length by E. G. Nourse, in *Price Making in a Democracy* (Washington, Brookings Inst., 1944).

The British approach to the problem magnifies the centralization of economic decisions in the state at the expense of the individual; in the Nuffield Conference Statement, to the point of practical collectivism. The major objection to this view, as presented, is not that it won't work¹⁵ but that it is inadequate, myopic and unbalanced. These faults stem from its failure to analyze and appraise its policy goal. Full employment is neither a simple nor an absolute concept. Most of us do not want jobs so much as we want the kind of employment that is compatible with our tastes and our abilities; and, more important than either, we require some measure of security of income and the maximum possible opportunity for the independent satisfaction of our preferences, the exercise of our respective skills and the development of our faculties. Full employment, then, is not a simple economic objective; it is a complex way of life within which conflicting ends must be compromised to provide the greatest benefits at the lowest feasible cost.

The full employment goal, as the kind of society in which one wishes to live, will vary from one country to another depending on its cultural and economic standards of living, the heritage of its past and its hopes for the future. By neglecting this fundamental fact, the Conference implicitly applied a foreign and, in my judgment, a false set of values to its problem. As a nation's standard of living rises, and ours is the highest in the world, individual opportunity and self-determination become increasingly important. The freedom of the individual, political and economic, is an essential ingredient of the full employment goal. Direct state control is a positive, albeit in some cases a necessary, evil.

The real problem in this country, then, is what is the highest level of productive employment, economic security and standards of living that can be achieved and maintained without direct state controls. This does not imply *laissez-faire*. The responsibility of the state to establish monetary-fiscal policies and to develop a program of essential public works designed to maintain high employment is at last recognized. The right and duty of the state to promulgate and enforce standards of conduct and to protect society against invidious practices of monopoly and quasi-monopoly, whether of business firms or trade unions, are not challenged. But only when such an alternative has been explored will it be possible to appraise the added advantages which direct state controls might provide as against the added sacrifices which such a policy would entail.

MELVIN G. DE CHAZEAU*

¹⁵ There is no doubt that a state with unlimited powers can achieve and maintain full employment at least in the literal sense of providing jobs and income security. In evolving its proposals for direct state controls, however, the Conference displayed more optimism that good decisions would be made than experience justifies, more faith in economic tools like social utility analysis and cost analysis than critical appraisal would warrant, and too ready an acceptance of the sterile wastes of bureaucracy in preference to the more fertile wastes of free enterprise.

*The author, on leave from the University of Virginia, where he is associate professor of economics, is at present a member of the Research Staff of the Committee for Economic Development in Chicago. The opinions he expresses are his personal views and do not necessarily reflect the position of the Research Staff or of the Committee for Economic Development.

The Financing of Employment-Maintaining Expenditures

Increasing attention has been paid lately to proposals for the stimulation of consumption as a means of maintaining employment when the total of individual desires to save under conditions of full employment exceeds profitable investment outlets, in contrast to the earlier tendency to think in terms of a resort to public works. Indeed the question is no longer merely an academic one in Canada, for one of the points mentioned in support of the recently-enacted family allowance measure¹ is that it will stimulate consumption and thus contribute to the maintenance of full employment.²

In discussing proposals of this nature it is usually taken for granted that they may be financed in exactly the same way as the alternative public works plan would be—the common suggestion being the use of borrowed funds to cover the budgetary deficit of the spending body (presumably the government). It is the purpose of this paper to question that assumption. The inquiry leads to certain modifying and qualifying factors, and thence to a proposal which, it is believed, will permit an optimum balance of expenditures as between consumption and public works (which indeed are only a form of durable consumption goods) combined with an optimum program for financing these expenditures.

Resort to deficit financing for a program of consumption subsidies or other current (as distinct from capital) expenditures is open to the criticism that it does not solve the disequilibrium between the net sum of individual desires to save and the actual investment opportunities open, which is surely the fundamental and basic element in the whole situation. It means that individuals will “save” and lend to the government money that is not really saved (invested) by the nation as a whole, but spent on consumption. It solves the problem of underspending, but it does not solve the problem of oversaving. It does not equate apparent savings with real savings—it does not equate the total “saved” in the popular sense and lent to others with the real savings of the community. This makes it difficult or impossible to retain public confidence if it is used as a long-run policy. How can the man on the street be expected to believe that money can be *borrowed* from one set of people in order to be *given* to another set indefinitely, without someone having to stand the loss some day? It would take a very high level of public economic education to maintain confidence in such a procedure, which is so contrary to everyday maxims of prudence and common sense.

In contrast, if the borrowed money is used for public investments of apparently durable value (which makes apparent savings and real savings equal), it will be much easier to retain public confidence; for it is the com-

¹ *The Family Allowances Act, 1944*; Statutes of Canada, 1944, c. 40. The act provides for allowances ranging up to \$8.00 per month, according to age and number of children, for each child under 16 years.

² This point was raised during the debate in the House of Commons by the Prime Minister, the Right Honourable W. L. Mackenzie King, and by Mr. (now the Honourable) Brooke Claxton; see *The House of Commons Debates* (unrevised edition), July 25, 1944, p. 5453, and July 26, p. 5517.

mon accounting practice to relate long-term borrowing to the acquisition of capital assets, and people will see that their bonds are financing community assets they would not otherwise have. In the case of self-liquidating projects, this advantage can be very well exploited by financing them through separate corporate bodies, the government guaranteeing the corporate bond issues instead of itself supplying the money; proposals of this nature have already made their appearance. Even projects which are not expected to be wholly self-liquidating can be treated in this way, with the government providing an annual subsidy equal to the deficit on the year's operations. Only the net annual cost of maintenance will appear in the government's accounts, and this can be compared fairly directly with the benefits accruing.

Of course, this argument becomes weaker in the case of expenditures on public works which yield such general benefits as good health and public welfare, as do public parks for example, and for which it is not practicable or desirable to exact a monetary return from the users. It fails altogether in the case where resort is had to public works having a very questionable usefulness.³

Thus it would appear that, whereas consumption subsidies ought to be financed entirely by taxation, public works need be so financed only after they reach certain limits.⁴ As noted below, however, to finance on these principles without sacrificing full employment raises other problems.

The conclusions just reached do not of course affect the main argument of those who propose the extension of private consumption rather than the use of make-work projects for the maintenance of full employment: the argument that additional expenditure on private consumption is to be preferred so long as it yields a marginal satisfaction equal to or greater than the marginal satisfaction yielded by the alternative public use of the funds. The question therefore resolves itself into whether there is any way in which to equate the satisfactions yielded by the marginal expenditures on consumption and on investment, and at the same time to equate the nation's apparent savings and real savings. Abstracting from the problems of devising a feasible tax structure, treated in the next section, we may note the proposals to tax all or certain types of savings. The many variants of these proposals—mostly designed either to force direct investment or to force consumption by the would-be saver quite as much as to raise revenue—have certain attractions, but they are rejected here because, as developed below, the existence of oversaving is *prima facie* evidence in favor of income redistribution. Some circumstances in which a tax on savings might nevertheless be appropriate are briefly discussed at the end of this section.

* It is interesting to note that in the comparable situation with consumption subsidies—when further consumption goods begin to pall on jaded appetites—the subsidies may be used to “buy” additional leisure instead of goods. This will reduce the number of job-seekers or job-hour seekers, and thus combat unemployment just as effectively.

* Financing by the issue of new money is not discussed because in practice it becomes either borrowing or taxation. If the new money does not cause a price rise it is in effect merely an issue of a very liquid type of short-term security, for both currency and deposits are simply demand obligations; to the extent that it does cause a price rise it has many of the effects of a tax, considerably resembling a sales tax.

It is a matter of observation that in most, if not all, nations incomes are unequally distributed. Inequality of incomes is justified on the grounds that it permits incentive differentials in remuneration which have a stimulating effect on production and result in a greater national income than would otherwise be realized; if all men are considered equal it is difficult to make a case on any other grounds than this for unequal shares in the national income except in so far as any persons refuse to contribute to its production. It is also a matter of observation, however, that most of the saving is done by those with the larger incomes. When oversaving exists under these conditions it is clear that more nearly equal individual incomes will tend to increase the national income by reducing savings and increasing consumption. If this tendency proves to be strong enough to offset or more than offset the reduced productive efficiency resulting from interference with incentive differentials, then the existing degree of inequality is greater than is justified and some degree of income redistribution is called for.⁵

Two principal types of income differentials are relevant: those necessary to induce investment of risk-capital in new developments, and those necessary to enlist special skills (including, of course, managerial skills) and to induce the acceptance of responsibility. The first type is less important here. For one thing, it can be fairly well met by tax concessions, including possibly special allowances on income earned during the first few years of an enterprise, as well as provisions for averaging losses and gains over a period of years. What is required is merely the possibility of a differential advantage from new investment compared to the purchase on the market of stocks or bonds of going concerns, or the purchase of government bonds. Indeed it may only be necessary to ensure that losses can be averaged out against gains, so that the taxing authority shares the risk as well as the profit. However that may be, it is only *the hope* of an increase in productive efficiency resulting from an untried new investment, *at the time the new investment is contemplated*, that must be weighed against equality of incomes; for, if increased efficiency were certain, then the possibility of a differential return would not be necessary to ensure that the investment would be made.

⁵If not, full employment with a lower national real income might or might not be preferred to a degree of unemployment with a higher national real income, but presumably a less drastic redistribution coupled with a suitable public investment program would give both full employment and a higher national income provided such a program was practicable in the circumstances. Indeed, with the same proviso, such a modification of the use of redistribution is indicated if its results substantially (but not completely) offset the stimulus of increased consumption on the size of national income, though it is difficult to say in advance just at what point and to what extent public works should be substituted for income redistribution on these grounds; that can only be decided in the light of the particular circumstances.

In this connection it should be noted that a public works program might also be an instrument of income redistribution, to the extent that it was directed to providing works used mainly by lower income groups (e.g., low-rental housing projects), and was financed out of revenues raised by a progressive taxation structure. Presumably it would be less effective for the purpose than the methods here contemplated, however, since substantial portions of the government's expenditure would go in the first instance to relatively well-paid skilled workers and as profits to contractors and equipment manufacturers, rather than to low-income groups.

As for the second type of differentials, at least some degree of redistribution can be effected at the expense of certain relatively high incomes, such as *rentier* incomes, in which incentive differentials will not be greatly affected; in fact, a reduction in some of these incomes might drive the present recipients to seek productive employment and thus contribute some increment to the national income. In any case it is reasonable to suppose that the propensity to save out of larger incomes will be more sensitive to changes in those incomes than the supply of differential skills will be to changes in the differential returns affected (at least over any range likely to occur in practice), since the absolute size of the differential in these incomes seems to be less important than the fact that a differential exists or (in some cases) merely that there is a hope of it. It therefore follows that redistribution under these conditions will not reduce, and will probably increase, the national income, and thus the *prima facie* case for the redistribution of income is established.

Typically, this redistribution might take the form of old-age pensions, unemployment insurance, family allowances, health insurance, and other social legislation, financed out of taxes on the higher incomes. (Incidentally, it should be noted that these very benefits would reduce the average individual's propensity to save, for the contingencies they meet constitute the "rainy day" for which most people want to provide a suitable reserve.) The redistribution should be carried to the point where the oversaving disappears, and the redistributive policies should endeavor to eliminate first those inequalities (if any) not related to incentive differentials. Should it turn out that the oversaving disappears before all inequalities not so related are eliminated the process might still be continued until they are eliminated, on considerations of welfare, if this is practicable in the circumstances.

There is, however, another limit to income redistribution as a means of counteracting oversaving, independent of the effect on incentives, which might prove to be effective even before incentives were seriously threatened. This limit involves the possibility that the marginal propensity to consume may, on the average, become constant or approximately constant above comparatively modest income levels. It is clear that, when practically all incomes have been raised to these levels, further redistribution will be entirely ineffective so far as reducing oversaving is concerned, whether or not a still closer approach to equality of incomes is desirable on welfare or other grounds. More generally, a limit is reached when the marginal propensity to consume becomes approximately the same for the entire population, whether it is due to the rise of all incomes into a range of constant marginal propensity to consume or to the reduction of all incomes to approximate equality. At this limit the only redistribution of income that could reduce savings would be one in favor of individuals with a high propensity to consume—wastrels being a conspicuous example.

Other measures for correcting oversaving are neither necessary nor appropriate so long as income redistribution is effective; their only justification is their effect on employment and income, whereas income redistribution has in addition the basic presumption in favor of equality of incomes. If,

however, income redistribution is carried to the limit imposed by interference with incentives or by the equalizing of marginal propensities to consume, whichever becomes effective first, and oversaving still exists, then other measures become both necessary and appropriate. Whether policy should in this situation be directed toward a reduction of savings and an increase in consumption, or toward public investment so that the savings would be realized by the community, would depend largely on the marginal utilities to be derived from the alternatives which offered themselves. In the former case taxation of savings would seem to be an appropriate measure, in the latter case public works financed by borrowing.

Summarizing the discussion so far, it has been argued that when expenditures on consumption or on the stimulation of consumption are preferred to made-work public investments for the maintenance of full employment they should, so far as possible, be paid for from taxation. Further, it has been argued that the most appropriate method of eliminating oversaving is the redistribution of incomes in favor of low incomes (spenders) financed by taxes on high incomes (savers), and that only when some degree of oversaving remains after this method has been used to its practical limit should it be supplemented by other measures.

There remains the problem of raising by taxation sufficient sums for the type of program outlined—and practical difficulties at once appear. Four difficult and partly-conflicting conditions must be met for the ideal solution: (1) The sums raised must be sufficient to meet the necessary expenditures. (2) The tax system must be progressive (probably steeply progressive) in the upper brackets at least in order to reduce the share of the national income left in the hands of the principal savers. (3) Nevertheless the taxes must be designed to interfere as little as possible with incentive and initiative, and in particular they must not prevent some degree of incentive differential returns. (4) The entire program (including the expenditure side⁶) must be quickly adaptable to amounts of oversaving varying from some negative quantity to a relatively large positive fraction of the national income, since oversaving is the residual of several more or less independent factors and may change rapidly.

So far as can be foretold now it seems that in the future governments will find it difficult enough to raise revenues adequate to carry out programs much more modest than might be defensible on the basis of the ideas presented above, especially in countries like the United States and Canada where federal constitutions raise problems of jurisdiction between national, regional, and local authorities; there is therefore room for grave doubt that a tax structure could be found to meet all the requirements of the ideal solution.⁷ Most likely it is the adequacy of the revenues and their flexibility

⁶Note that this constitutes an argument against reliance on social security or income redistribution measures solely, without any admixture of public investment; for once such measures were begun it would be difficult to discontinue them.

⁷Though it may appear so at first sight, it is not illogical to suggest that a degree of income inequality greater than is justified by incentive differentials may exist and yet that taxation to eliminate this inequality would injure incentive. In fact, it may well be

that will suffer, for the force of public opinion will almost certainly compel the expenditure of sufficient sums to maintain reasonably full employment whether this means resort to borrowing or not.

Under such conditions some people might argue that expenditures for consumption subsidies should be limited to what could be covered by revenue after paying all normal governmental expenditures, and that all other necessary employment-maintaining outlays should be made in the form of public works so that there would be tangible assets associated with the borrowing. This seems somewhat unrealistic, however, unless there are practicable projects that promise to be entirely or partly self-liquidating sufficient in number and size to absorb the excess savings remaining after the measures designed to redistribute income have been used as fully as possible; for, as argued above, reliance on public works whose direct usefulness and "value" to the public is uncertain has no merits over consumption expenditures so far as maintaining public confidence is concerned. Even if there are sufficient projects of a suitable nature, there is no justification for a rigid rule against the expenditure of borrowed money on consumption or the stimulation of consumption. The only argument that has been advanced in this connection is the need to retain public confidence in the program; there is no suggestion that the public will refuse to sanction any consumption payments at all from borrowed funds, but only that the limits to such measures are narrower than the limits to expenditure on public works. What *can* properly be said, and what is really significant, is that the extent to which use will be made of expenditures on public works instead of on consumption, and the extent to which these expenditures will be financed by borrowing rather than by taxation, are matters that must be decided on the basis of broad policy, but that they constitute a structure of interdependent problems to be solved together rather than a series of independent problems which can be solved individually. In reaching these policy decisions the desirability of increased consumption by certain elements of the population, the desirability of an increase in the consumption of certain things (such as better housing), the desirability of various public projects, the probable attitude of the lending public to the whole program, and many other factors would enter. There is nothing in these considerations to weaken the proposition made in the preceding section, namely that, so far as possible or effective, income redistribution should be used as the means of eliminating oversaving.

ALEX N. McLEOD*

*The author is an economist employed by the Department of Finance at Ottawa, Canada. The opinions expressed are, of course, his own views and not necessarily those of the Department of Finance.

that some reduction even of inequalities arising out of incentive differentials would increase the national income by reducing oversaving, and yet any possible tax designed to achieve that purpose might reduce the national income instead. The explanation of these paradoxes is that taxation must be imposed by statutes having general application, and so is too coarse an instrument for many of the nice distinctions of economic theory. For example, it would be extremely difficult in practice to devise an administratively feasible tax that would impinge solely on pure rent, though this is a comparatively simple economic concept.

A Formula for Social Insurance Financing

Recent proposals for post-war taxation have failed to deal effectively with the problem of social insurance financing. In a recent review of the proposals advanced by the Twin Cities Research Bureau, by the Research Committee of the Committee for Economic Development, and by Beardsley Ruml and H. Chr. Sonne, Professor Shoup said: "Altogether, the pay-roll tax recommendations, or the absence of them, are probably the weakest part of all three reports. It is difficult to see how the social security program can be considered in isolation from the rest of the government's finances, if the aim is to consider the impact of those finances on the economy as a whole."¹

The problem of social insurance financing, in the past, has aroused considerable controversy. The failure of recent writers on the subject of tax policy to deal with this problem may be due to their reluctance to wrestle with the complex independent issues posed by taxation for social insurance.

Some have argued that, to guarantee the payment of social insurance benefits as a matter of right, it is essential that the program be financed through an earmarked tax source, the base of which is related to the income or earnings base of the benefits; and that the tax source for the program be sufficient—without supplementation—to meet the entire benefit costs, present and prospective. Such a pattern of financing was adopted in the Social Security act of 1935 for the old-age benefit and unemployment compensation programs. Since 1935, the general financial framework has remained largely unaltered, although tax rates have been modified and some provision has been made for supplementing pay-roll tax receipts. Nevertheless, it is anticipated that the yields of the pay-roll taxes will be sufficient, at least for some time to come, to finance the entire cost of the program.

Repeated "freezing" of pay-roll tax rates for old-age and survivors insurance at one per cent each on employers and employees, in the face of estimated level premium costs for the program of between 4 and 7 per cent, led in 1944 to the adoption of an amendment to the Social Security act authorizing an appropriation to the federal old-age and survivors insurance trust fund from general funds. In the Congressional discussion, however, it was emphasized by Senator Vandenberg that the amendment "carries with it no implication that any additional sums are necessary now or in the foreseeable future."²

Effective tax rates for unemployment benefit financing have been reduced through the widespread use of experience rating by the states. By 1944 the average tax rate on employers for this program for the nation as a whole had dropped from the basic rate of 2.7 per cent to about 2.0 per cent. In states with experience rating, the average state-wide effective tax rate was substantially below 2.0 per cent, and in a number of states it was 1.5 per cent or less. The average nation-wide tax rate would have been still lower

¹ Carl Shoup, "Three Plans for Post-War Taxation," *Am. Econ. Rev.*, Vol. 34, No. 4, (Dec., 1944), p. 770.

² *Congressional Record*, January 19, 1944, p. 374.

had not 10 states enacted special "war-risk" provisions in 1943, requiring extra contributions from firms which had expanded during the war, or—in one state—from all employers. As a consequence of lowered rates, more than one billion dollars has been lost in contributions which otherwise would have been added to reserves to help in meeting prospective outlays for unemployment benefits at the war's end and thereafter. Despite rate reductions, however, it is generally expected that state balances in the unemployment trust fund, augmented by current tax collections for this program, will be ample to support the benefit loads under existing benefit provisions without recourse to supplementation. There is a further bulwark in the provision for federal loans to any state unable to meet its benefit obligations in the reconversion period.³

The financial provisions of the Wagner-Murray-Dingell bill of 1943 were largely patterned on the finances of the present programs.⁴ This bill provided for liberalization of present benefit provisions, extension of coverage to groups now excluded, and broadening the scope of the social insurances to include permanent and temporary disability benefits and medical care and hospitalization services. It called for a 12 per cent pay-roll tax, divided equally between employers and employees, and a 7 per cent tax on the earnings of the self-employed. These rates presumably were set with a view to providing the amounts which would be needed to finance the benefit and administrative costs in the decade or two ahead under varying economic conditions, and in addition, to build up a contingency reserve for the current-risk protections and a partial earnings reserve for the rising old-age and permanent disability benefits. While the bill authorized an appropriation from general funds to help in financing the costs, any government contribution would presumably be delayed for some years until it was needed to supplement resources built up from the pay-roll taxes.⁵

The system of pay-roll taxes and social insurance reserves has been severely criticized by some because of its deflationary effects. Its opponents point out that before the war it led to a substantial curtailment of consumer spending and thus aggravated the problems of underemployment. They argue that unless the method of social insurance financing is drastically revised—as applied to the present programs, to the comprehensive social insurance programs recommended by the Social Security Board, or to those proposed in the 1943 Wagner-Murray-Dingell bill—it will be a serious stumbling block in the way to full employment after the war if deflationary forces tend to predominate. Accordingly, they propose that the system of social insurance financing be brought into line with general economic and fiscal requirements of the economy. To assure parallel general fiscal and social insurance financing policies, they urge that the costs of the insurance program be met as far as possible from general revenues.

In any modification of the financial provisions of the present or proposed

³ Public Law, No. 458, 78th Cong., approved October 3, 1944.

⁴ S. 1161, 78th Cong., 1st sess., June 3, 1943.

⁵ *Congressional Record*, June 3, 1943, speech of Robert F. Wagner on the Wagner-Murray-Dingell Bill—S. 1161.

social insurance programs, however, account must be taken of the essential features of these programs. A social insurance system by definition is a contributory system under which those protected against the economic risks covered, or their employers on their behalf, participate in financing the costs of benefits provided. While it is possible to design a system of social security protection which could be financed wholly out of general tax funds, there are compelling arguments for retaining the contributory social insurance approach.

In the first place, the contributions paid by, or on behalf of, insured individuals under a contributory system of social security provide an assurance that the statutory benefits will be paid, regardless of current economic conditions. In contrast, under a social security system financed wholly out of general tax funds, there is always the danger that benefit amounts may be reduced and rigid disqualification provisions introduced, when tax revenues decline as a result of unfavorable economic developments.

A contributory system has the further advantage of providing benefit payments to insured persons as a matter of right and thus frees the social security programs from the undesirable features of public charity. Moreover, the contributory method permits the payment of benefits to all eligible persons without regard to other resources at their disposal. This enables persons whose income ceases or is interrupted to maintain their standard of living nearer its previous level than would be possible under a system of public assistance where financial help generally comes only as a last resort after other resources have been exhausted. In view of the difficulty of reestablishing a standard of living that has once been broken, this advantage of the contributory method is of considerable importance.

In addition, the contributory method provides both a justification and a basis for adjusting benefit amounts to the previous level of earnings of insured workers. The resultant variations in benefit amounts take account of the wide differences in family income and in standards and costs of living. Similar variations of benefits would raise complex administrative and other problems if the system were financed wholly from general tax funds.

Finally, a social security system which requires contributions from or on behalf of insured persons provides a basis and an incentive for participation on the part of the insured groups in the formulation, administration, and further development of the programs.

Within the context of the social insurance approach, however, the financial provisions of the social insurance system may be designed to bring its economic effects in line with the general requirements of the economy as a whole. A formula for financing a unified, comprehensive system of social insurance is presented here in a tentative form to encourage further discussion and analysis. It is proposed that the social insurance program be financed in such a way that at full, or high-level, employment the combined effect of pay-roll taxes and benefits, on consumption, would be neutral. To achieve this, the pay-roll tax rate would have to be such that at full employment the restrictive effect of the taxes would be balanced by the stimulating effect

of the social insurance benefits. At levels below full employment, the same tax rate and the augmented benefit disbursements would have, on balance, a stimulating effect on consumer demand.

This formula is a compromise between more extreme positions. It seeks to retain the advantages of the contributory social insurance approach. It keeps the social insurance budget distinct from other federal finances. Pay-roll taxes on workers in employments covered under the programs, and on their employers, are retained as earmarked tax sources. Some reserve accumulations are provided, but the amount of future additions to reserves would be considerably lower than if the taxes under the 1943 Wagner-Murray-Dingell bill, for example, were adopted. At the same time, however, the social insurance program, in its effect on the economy as a whole, would complement rather than work at cross purposes with fiscal and other measures designed to achieve a high level of income and employment after the war.

The Committee for Economic Development and the Ruml-Sonne proposals on financing social insurance, while generally vague and indefinite, appear also to be directed at removing the deterrents to a high level of consumption which result from reserve accumulations for social insurance. The Ruml-Sonne recommendation on unemployment compensation taxes is fairly definite in its intent that the benefit-tax provisions be neutral in their effect on consumption only at high employment, have a stimulating effect at lower levels, and a deterring effect at higher levels. They recommend that the rates of the unemployment taxes "should be set to produce income to balance outgo at high employment and reserves should accumulate only after we have reached high levels of employment and production. . . ."⁸

The Ruml-Sonne scheme does not lend itself to the present unemployment compensation program, because the program is now operated as so many separate programs by the states and because of the conflict between the proposal and experience rating now in effect in all but six states. It could, however, be adapted to a comprehensive federal social insurance program. Reinterpreted in the context of the social security provisions outlined in the 1943 Wagner-Murray-Dingell bill, the Ruml-Sonne plan would call, for the near future, for approximately a 5 to 7 per cent tax rate, the exact rate depending upon total benefit outlays and the level of taxable earnings. At a 5 to 7 per cent rate the budget for social insurance would be in approximate balance at high employment in the next decade. As the outlays for old-age and permanent disability benefits increase with the rise in the aged population and in the number of persons eligible for benefits, the rate would have to be raised.

Although Ruml and Sonne do not say so explicitly, their proposal assumes that social insurance taxes result in a direct reduction of consumption equivalent to the full amount of taxes collected. Analysis of the distribution of employer and employee contributions among income classes indicates, however, that this tacit assumption is substantially invalid. In 1941, total pay-roll taxes

* Beardsley Ruml, and H. Chr. Sonne, *Fiscal and Monetary Policy* (Washington, Nat. Planning Assoc., 1944, pamph. no. 35), p. 10.

of somewhat over 2 billion dollars collected for the present programs may have reduced demand for consumer goods by about 1.5 billions.⁷ In other words, for every dollar of social insurance contributions, spending may have been reduced by about 75 cents, while the remaining 25 cents may have represented a reduction of private saving. Social insurance benefits, on the other hand, may reasonably be assumed to be spent in almost their entirety because they are paid only to those who suffer a loss of earnings and compensate for only a part of the earnings lost. Accordingly, in 1941 the effects on consumption of the benefits on the one hand and of taxes on the other could have been balanced if \$1.33 instead of more than \$4.50 had been collected in taxes for every \$1.00 of benefits disbursed.

We have estimated that in a post-war year, with a gross national product of about 200 billion dollars, the effects of social insurance taxes and benefits on consumption would be neutral under the 1943 Wagner-Murray-Dingell bill if approximately \$1.25 were collected in taxes for every \$1.00 of benefits.⁸ A lower balance-ratio of taxes to benefits is estimated for a post-war year than for 1941 because of differences in coverage between the present programs and the program contemplated under the 1943 Wagner-Murray-Dingell bill, particularly because of the proposed extension of coverage to farmers, agricultural workers and domestic workers, and because of the increased propensity to consume of families in each income class—an increase which accompanies the assumed higher cost of living. We have estimated that a combined pay-roll tax on employers and employees of 7 to 9 per cent would achieve this balance in the immediate years ahead at the 200-billion-dollar gross national product level. The social insurance budget in terms

⁷ "Social Insurance Benefits and Contributions in Relation to Family Income, 1941," Social Security Board, Bureau of Research and Statistics Memorandum No. 59. In this analysis it was indicated that the maximum reduction in consumption results if it is assumed that pay-roll taxes on employers are shifted forward to consumers in their entirety. If the incidence of the employer tax were assumed to be either on wage earners or partly on profits, a lower proportion of the tax would come out of consumption and a somewhat higher proportion of reserve accumulation would be offset by reductions in other savings.

⁸ This ratio is based on an analysis supplementing the study cited in footnote 7, which adapts the methodology and assumptions used therein to the provisions of the Wagner-Murray-Dingell bill and to a 200-billion-dollar gross national product level. In summary, the ratio was arrived at by the following method. An estimate was made of the contributions which would be paid directly or indirectly by each income class under the bill. The distribution of employee contributions was based on the estimated distribution of taxable earnings by income class, while employer contributions paid indirectly by each income class were estimated on the basis of consumer expenditures by income class. Aggregate contributions thus estimated for each income class were allocated between spending and saving in accordance with the estimated marginal propensity to consume of each class derived from the relationship between consumer expenditures and income after personal direct taxes. This analysis indicated that approximately 80 per cent of total contributions would be paid out of funds otherwise used for consumer expenditures, or stated somewhat differently, that each \$1.25 of contributions would reduce consumption by about \$1.00. The distribution of benefits by income class was next estimated on the basis of past studies of income status of beneficiaries, incidence of economic risk by income groups, and other data; these estimates indicated that, for the benefit system as a whole, \$1.00 of benefits would increase consumption by about an equivalent amount.

of dollar outlays and dollar collections, with a 200-billion-dollar gross national product, would be balanced with a rate of approximately 5 to 7 per cent. Hence, there would be a margin of about 2 per cent for reserve accumulation at full employment. In terms of our analysis, this margin would derive from potential savings and not from current consumption.

If, as has been suggested in the formula presented above, the rate were set to achieve a balancing effect on consumption at full employment, the social insurance programs would stimulate consumption at lower levels of employment. Characteristically, social insurance disbursements rise as employment falls off and pay-roll tax collections drop simultaneously. Accordingly, the volume of consumer demand released by the program would be expected to expand as employment declined and the program as a whole would work toward regaining a higher level of employment.

While the formula would go far toward meeting the basic economic criticisms of present methods of social insurance financing, it is only a step in the direction of maximizing the potentially expansionary effects of the social insurance disbursements on the volume of consumption. If the contribution rate is kept below the rate determined by the formula, or the base on which the contributions are calculated is modified so that a lesser proportion of these contributions would be a potential drain on consumption, the social insurance disbursements could have a substantially greater stimulating effect on the demand for consumer goods and services. Modifications in these directions could make the social insurance program a better financial tool to aid in achieving and in maintaining full employment. If the social insurance approach is to be maintained, however, some contribution from or on behalf of insured persons must be retained as an integral part of the financial structure of the program.⁹

Nor does the formula assure that the program will be wholly self-supporting. If disbursements over a cycle in the next decade or so ahead averaged more than 7 to 9 per cent of taxable earnings, or if disbursements were high at the outset, a contribution from general funds (or from some specified tax source) would have to be made to underwrite the difference between social insurance disbursements and pay-roll tax collections.¹⁰

Moreover, additional funds would be required to finance the secular rise in old-age and permanent disability costs. These additional funds could be raised by increasing the pay-roll tax rate periodically to parallel the secular increase in benefit outlays, using again as a bench-mark for the rate determination a balance of the effects of the program on consumption at full employment.

⁹ It is outside the scope of the present note to examine and analyze the factors which enter into determination of the minimum rates of contribution necessary for maintenance of the social insurance approach.

¹⁰ Alternatively, reserves already accumulated might be drawn upon to finance excess disbursements. Whether the excess is met by reserve withdrawals, taxation, or borrowing, however, the specific sources used must be selected with a view to minimizing any restrictive influence on consumption if the expansionary effect of the formula at less than full employment is not to be offset in part, or in its entirety.

The secular increase in costs also could be met by a government contribution to the program—a government contribution which would rise with the increasing disbursements. A contribution toward the program out of general tax funds has been accepted in principle as an integral part of social insurance financing. Most countries which have established social insurance systems have assessed the community as a whole for a part of the cost of these programs. Such a contribution from general funds has been urged for the present social insurance programs since their beginning. The plan for financing the old-age benefits submitted to the President by the Committee on Economic Security in 1935, the group largely responsible for the formulation of the Social Security act of 1935, made provision for a government contribution. As indicated earlier, an appropriation from general funds to the present old-age and survivors insurance program was authorized in the Revenue act of 1943, and a similar appropriation provision was included in the 1943 Wagner-Murray-Dingell bill. Appropriate selection of sources used to finance a government contribution would enhance the beneficial long-run effects of the social insurance program on consumption.

S. J. MUSHKIN*

ANNE DE SCITOVZKY†

*† The opinions expressed are those of the writers, and do not necessarily represent the official views of the Social Security Board, where they are employed.

The Field of Labor Economics: A Review

I

The Millis-Montgomery trilogy¹ is now complete. The recent publication of the third volume has been the occasion of much satisfaction and rejoicing among the numerous students whose lives have been influenced by the authors as teachers and among the many instructors whose work has been benefited by use of the first two volumes. It can truly be said that *The Economics of Labor* is a fitting monument to the outstanding accomplishments and contributions of the authors, particularly the senior member of the firm, in the field of labor relations and labor economics.

The three-volume work, together with the previously published volume on collective bargaining² directed and edited by Millis, provides relatively complete coverage of all important labor topics and issues. The authors say, in the Preface to Volume I, that "it is probably true that the volumes do not, separately or together, constitute 'texts' or a 'text' in the conventional usage of the word." This statement may have been true when written. Before war developments highlighted the importance of labor matters as never before,

¹ *The Economics of Labor*. Vol. I: *Labor's Progress and Some Basic Labor Problems*; Vol. II: *Labor's Risks and Social Insurance*; Vol. III: *Organized Labor*. By Harry A. Millis and Royal E. Montgomery. (New York: McGraw-Hill. 1938; 1938; 1945. Pp. xvi, 584; xxii, 453; xiii, 930. \$3.75; \$3; \$6.)

² *How Collective Bargaining Works*. By Harry A. Millis and others. (New York: Twentieth Century Fund. 1942. Pp. xxviii, 986. \$4.00.)

the usual one- or two-semester college labor course needed a shorter, less exhaustive treatise, and the volumes were more properly usable for reference and perhaps for graduate study. But it is to be doubted that the statement is true in 1945 and 1946. Colleges and universities are expanding their undergraduate and graduate labor work to three, four, five, and more semesters. Many of them are establishing schools of industrial or labor relations, with every evidence of permanence. Labor has been on the march, and higher as well as lower education is trying to keep pace with it.

In this setting, therefore, the appearance of these books affords an opportunity not only for appraising them in terms of adequacy for teaching but also for appraising our other educational resources for the teaching of labor economics and labor relations.

II

Appraisals can be properly made only in terms of explicitly specified standards. Therefore, before the appraisals mentioned above are undertaken, it is necessary that certain criteria for judging the adequacy of labor textbooks and of labor education be set forth.

A good labor textbook and course or group of courses should, in the first place, be complete and comprehensive, in two senses. It should cover all the items of major labor importance, and it should, within the limits of space and time imposed by a course of one, two, or more semesters, present all the reliable data relevant to an understanding and analysis of the major items. These items are the several "problems" of labor; the efforts of employees through self-organization to adjust the problems; the efforts of employers to meet the problems; the relations between organized labor and employers in these efforts; and the approach of government to the problems.

Second, the material should be not just descriptive but also and primarily analytical. No teacher worthy of the name is content to have his students merely memorize large amounts of factual material; at examination time and after graduation there will never be anything but the mental regurgitation of large, undigested factual curds. The need for analysis is evident in all discussions of relations between employers and unions, but the need is particularly acute with respect to discussions involving economic theory.⁸ Every labor "problem" exists in a frame of reference determined by economic as well as other forces. Every effort and every proposal to "solve" a labor problem requires appraisal in economic terms and with the use of economic-analytical methods.

A third and related requirement is that of integration. Every labor textbook and course can and should have a unifying central theme (or group of

⁸The fact that "price" economists have looked down their noses at teachers of labor courses is almost entirely the fault of the latter. The ranks of labor teachers have contained too many sociologists, political scientists, and historians whose education, if any, in the use of the tools of economic analysis has been distressingly inadequate, and it is a feeble defense at best for such teachers to accuse the price economist of ivory-towerism and devotion to impractical theory. The same thing is true of some labor textbook writers.

themes) that gives greatly added meaning to the factual material and to its analysis. Unrelated, uncoordinated, unsynthesized facts are intellectual dirt.

This necessary integration is of two sorts. There should be an internal consistency of material, and there should be an integration of material with general social, political, and economic developments.

Fourth, a labor textbook or course must, if it is to hold the interest of unmatured minds, contain what such minds would call "practical stuff." The range here is wide and includes everything from stories of strikes and examples of restriction of output by unions to visits to industrial plants and union meetings and the holding of labor relations "clinics" or "institutes."

Fifth, there should be the stimulus to do further reading and to do research. Although this is mainly a matter for the teacher, the textbook writer can contribute by suggesting needed fields for exploration. Research in labor economics and labor relations is possible because labor courses are normally for advanced students, and research is a paramount necessity because so little true research has been done and so much remains to be done. How much actually is known about how collective bargaining operates, about what produces successful programs of labor relations? The answer is that knowledge of these things now is almost as unsystematized as was knowledge of medical matters a century or less ago. The teaching of the practice of medicine went hand in hand with the development of a systematic body of medical fact and theory through research.⁴

Sixth, it goes almost without saying that method of presentation is important. Untidy organization and dull, ponderous style is a tremendous handicap to any textbook of course, no matter what its other virtues. No field offers more opportunities for experimentation in teaching method, including the use of visual aids, than does labor.

III

Judged by these standards as textbook (or as an all-round reference work), *The Economics of Labor*⁵ stands very high. In many respects it is the best available. On almost any given topic no other book possesses such a wealth

⁴ I am indebted for this analogy to George W. Taylor, Chairman of the National War Labor Board.

⁵ Volume I deals with the following topics: the usual historical-background introduction; the problem of wages and income, including a full discussion of wage theory; women in industry; child labor; and the problem of hours or work. In this volume, as in the other two, the governmental approach to the problems is handled immediately following the discussion of each, in contrast to the method, employed in certain other textbooks, of reserving to a final part or section the treatment of the governmental approach to all the problems.

Volume II is concerned with a detailed discussion of unemployment, industrial accidents, sickness and non-industrial accidents, superannuation, and the state's efforts to meet these problems.

Volume III discusses the history of the American labor movement; the organizational structure and internal government of unions; the theory of collective bargaining; the economic policies and practices of unions; the development and present status of the common and the statutory law on unionism; company unionism; and methods of settling labor disputes.

of carefully screened material. Practically every page bears evidence of the authors' mature and thorough scholarship. From the standpoint of completeness in the larger sense, however, there are several regrettable and important omissions or near-omissions. Thus, there is little or no discussion of such economically weak groups as Negro workers. There is only incidental treatment of problems from the employer's point of view. Union political action is handled only as a part of union history; there is no satisfactory separate analytical discussion of political action as part of the union program. Collective bargaining as an institution distinct from (although inseparably bound up with) unionism and employerism as such is not discussed except cursorily and in passing.

Of these omissions the last-stated one is by far the most serious. Labor relations are among the very most important matters in America today. Satisfactory relations are essential to the preservation of political democracy. In the end unionism and employerism have meaning only in terms of union-employer relations. Yet this book fails to spotlight the problem.⁶

Fortunately this omission is made up in large degree by the other Millis book, the one on collective bargaining, in which after a brief description of the nature of the bargaining process, the pattern⁷ of labor relations is described in more or less detail for some twenty industries by sixteen author-specialists.

With respect to the analytical and integration criteria, these books are, at least in comparison with other textbooks in the field, to be highly regarded. The analyses in both labor economics and labor relations, particularly the latter, do not at times seem to be sufficiently penetrating and sufficiently woven into the whole fabric of the writing. Some of the important economic theory, for example, is to be found in footnotes. Again, there is little resort to such theory in discussing such matters as government wage regulations.⁸ Nevertheless, as in the discussion of wages and unemployment and of union

⁶In a sense this failure illustrates a certain lack of up-to-dateness evident at various other places in Volume III and arising no doubt out of the necessities of manuscript revision due to publication delay. See, for example, the discussion of the "standard rate," pp. 390 ff.

⁷The general outline followed by most of these studies includes discussion of the economics of the industry; the history, structure, and functions of unions and of employers' organizations; the development of collective relations through strikes and agreements; analysis of issues and their settlement; and appraisal of bargaining in terms of industrial peace and coöperation, grievance machinery, wage-hour trends, security provisions, and employers' cost-competitive positions.

⁸There is, in fact, no labor textbook which satisfactorily employs and integrates the tools of economic analysis in its discussions. The best thing thus far in this respect is R. A. Lester's *Economics of Labor* (Macmillan, 1941), and labor teachers and writers are greatly in his debt. But Lester, after berating his competitors in front of his textbook audience (see pp. 247, 360) and beating his chest while shrilly promising to synthesize Keynes, Robertson, Robinson, and Chamberlin, misses the trapeze in midair and is fortunate to land in the safety net of confusion.

Although not a textbook, J. T. Dunlop's little boiler, *Wage Determination under Trade Unions* (Macmillan, 1944), will also prove suggestive to the growing number of teachers and writers who are striving to place labor economics in its proper position with the rest of the family. S. E. Harris's *Economics of Social Security* (McGraw-Hill, 1941) provides another example of what to include and how not to include it.

wage policy, there is a well-balanced treatment of theory and there are frequent cross references to the review of wage theory in Volume I.

The volumes contain enough illustrative material to satisfy the most "practical minded." The serious student, moreover, will lack no inspiration in the matter of secondary and primary research, for, as already indicated, the authors have marshaled an imposing array of the results of the labor researches done by outstanding persons and organizations. The skillful teacher will find many unanswered questions which cry for investigation.

The organization and style are adequate. The writing is just a bit on the dull side but not obtrusively so. There is a noteworthy lack of graphic presentation of facts.

IV

Any college teacher who might wish to "adopt" these four volumes as a basic textbook would need at least four semesters to do justice to them. This raises the question of the amount of time properly and fairly to be allotted to the teaching of labor courses. Before the war the ordinary college offered a single labor course of one or two semesters. Obviously a student could have gained only a superficial acquaintance with the field after such a limited exposure. But there are many other demands on classroom and study time. Therefore the question really comes to this: On the assumption that the teaching is to be done by persons who are entirely competent as pedagogues and economists, is the study of labor economics and labor relations sufficiently important relative to the importance of other studies to warrant the use of more than one or two semesters?

The answer to this question depends of course on the answerer's set of values. The events, international and intranational, of the past fifteen years have convinced at least labor economists that four semesters is a minimum and that six are to be preferred. There should be no valid objection to either program if the courses are elective rather than required. The four-semester program would doubtless be arranged as follows: (1) the problems of labor; (2) unionism; (3) employerism and collective bargaining; (4) the government and labor. The six-semester program might include (1) the problems of labor; (2) unionism; (3) employerism; (4) labor relations; (5) labor relations and the government; (6) protective labor legislation and social insurance.

At this point the question properly arises, if economic theory is to be integrated in labor courses (or, to state it differently, if labor courses and labor teaching are to be appropriately integrated into a whole, well-balanced curriculum in economics), should there not be additional courses in labor economics, especially because of organized labor's growing preoccupation with the problem of "full employment," a subject which inevitably involves major portions of the contents of various "non-labor" economics courses, such as public finance, social control of business, money and banking, and international trade? In approaching this matter from the given premises and facts many economists would say that the truly proper question is, Why have so many specialized labor courses?

In my judgment, the answer to either of these questions is not difficult

to obtain. In any well-rounded economics curriculum there are necessarily several fields of specialization. In each of these specializations there is content peculiar to the specialization and there is content leading to matters that are common to all economics. (Indeed, there is content common to most of if not all fields of knowledge.) So with the specialization in labor: Much of the material on unionism, labor relations, and social insurance is highly specialized and not immediately or directly related to the general field of economics; but the most important material is inevitably and inextricably bound up with general economics. This being so, it follows that a student or a teacher cannot be a "labor" economist merely by knowing and understanding general economics, and it follows further that he cannot deserve the appellation "economist" merely by knowing and understanding the content peculiar to the labor specialization. Both are essential, and both are possible when there is a labor specialization in the curriculum.

That there will be labor specializations, at least in university curricula, is not to be doubted. Labor courses are rapidly coming of age. The post-war planning of many schools has already found realization in the appropriation of sizeable public or private funds for the establishment of comprehensive labor curricula. The rash of university "schools of industrial relations" promises to reach epidemic proportions.

All this is highly satisfying to labor economists and to all who are interested in the development of knowledge and understanding in the field of labor relations. But already certain tendencies are evident which make one fear that the growth may be mushroom and unsound rather than healthy and solid. Professional integrity in labor teaching and research is threatened where the schools' funds are appropriated by legislatures dominated by union or employer groups. Too many of the tentatively announced curricula and programs (which include the expected labor relations "clinics" or "institutes") indicate a depressing lack of interest in or understanding of the vital need for plenty of economic analysis through integrating courses in practical theory. And research,⁹ as an essential catalytic and synthesizing agent, is all too rarely mentioned, much less planned for.

An awareness of these dangers and the will to avoid them can make college and university education in labor something to regard with pride among the positive achievements of democratic America. And attainment of both the awareness and the will should be made easier by due regard for the example set by the authors of *The Economics of Labor*.

CARROLL R. DAUGHERTY*

*Labor research clearly goes far beyond the superficial collection, tabulation, and presentation of information on various aspects of company personnel programs as conducted by some of the "industrial relations sections" connected with certain universities. Labor research should represent the spirit and method of scientific inquiry applied penetratingly and persistently to the complexities and subtleties of human-economic relationships in industry.

*The author, who is on leave from the chairmanship of the economics department at Hunter College, was wage stabilization director of the National War Labor Board from October, 1942, to July, 1945, and is now in New Zealand as head of the Lend-Lease Mission and as economic advisor to the United States Minister to that country. He has specialized in teaching and writing in the fields of labor economics and labor relations.

Messrs. Mosak and Salant on Wartime Inflation: A Rejoinder

In an article in the December, 1944, issue of the *Review*¹ Messrs. Jacob L. Mosak and Walter S. Salant criticized my discussion of the inflationary gap in an earlier issue of the *Review*.² I would like to make the following comments on their criticism of my analysis and the alternative set of relationships affecting the price level which they offer. It is necessary to state these comments in a categorical manner without submitting the evidence which supports them, since the Editor of the *Review* has requested me to limit them to a brief rejoinder.

1. Messrs. Mosak and Salant attempt to restate in their own language, in a series of seven propositions, the assumptions involved in my analysis of the pressure on prices in wartime. Not one of these statements is an accurate presentation of my position—in some the distortion is slight and makes no significant difference in the reasoning, but two (items 3 and 4) are so stated as to conceal important steps in my chain of reasoning, and one of these contradicts explicit statements in my article.

2. With respect to the efficacy of price and related controls, Messrs. Mosak and Salant confuse the issue by failing to distinguish between (a) control of retail prices, to which my analysis was pertinent, and (b) controls over prices of basic materials, wages, and profits involved in control over prices charged for goods purchased by the government, which were assumed as part of the setting of the problem to which my article was devoted. I explicitly stated that controls over prices paid by government were excluded from the scope of my discussion.

3. Messrs. Mosak and Salant object to my conclusion that the pre-war consumer expenditure-income relationship has been upset by wartime conditions other than the influence of bond drives, rationing and retail price control, primarily on the ground that I used a proportional relationship in analyzing the pre-war data for aggregate consumer expenditure and aggregate disposable income. This criticism of my analysis may be accepted as valid; a linear relationship, without the assumption of proportionality, is a better fit. However, the departure from proportionality is so small that it does not significantly affect my argument or my conclusions. Also, Messrs. Mosak and Salant ignore the effect of change in the inequality of income distribution upon the relationship of the aggregate figures, and the probability that wartime taxation has so altered the inequality of income distribution as to produce a tendency in the direction of proportionality between aggregate consumer expenditure and aggregate disposable income.

4. Messrs. Mosak and Salant claim that the data I examined do not warrant the conclusion I drew with respect to stability of the relationship between the cash balances of individuals and their expenditures for taxes and con-

¹ "Income, Money and Prices in Wartime," *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec., 1944), pp. 828-39.

² "Monetary Expansion and the Inflationary Gap," *Am. Econ. Rev.*, Vol. XXXIV, No. 2 (June, 1944), pp. 303-27.

sumers' goods and services. Their objection to my conclusion is based on the unjustifiable statistical procedure of fitting a linear line of regression to data with a significant trend without either (a) treating time as a third variable, or (b) investigating the factors responsible for the appearance of the trend and taking in an appropriate variable or variables. They also ignore (a) the nature of the errors inherent in the estimates of cash balances of individuals, which are such (*i.e.*, errors which tend to be offset in the preceding or succeeding year) as to produce a considerable scatter around a line of regression even though the line of regression were a perfect fit to the actual facts, and (b) the light which other data (*e.g.*, ratio of consumers' expenditures to the cash balances of business and individuals) throw on the probability that the observed scatter is primarily of this character.

5. Messrs. Mosak and Salant suggest an alternative "determinate system" of relationships, in two versions, regarding the level of prices in wartime without direct governmental control. One of these versions makes use of important assumptions which are identical with those underlying my former article and for which they criticize me. The other version is of such a character that, if correct, and if (a) individuals had maintained the pre-war relationship between aggregate disposable income and aggregate consumer expenditure, as Messrs. Mosak and Salant insist they would have done without direct governmental controls; (b) the government had abolished or reduced taxes to a very low level thus meeting almost all of its expenditures by borrowing (from the banking system to the extent that the government deficit exceeded the volume of savings indicated by the pre-war relation of consumer expenditure to gross national product); and (c) the proportion of the national product taken by government was that which in fact occurred, the result would have been a gross national product worth less than zero.

6. Neither the quantity of money nor change in that quantity appears directly or indirectly in the Mosak-Salant determinate system. This means that Messrs. Mosak and Salant assume it to be of no consequence whether the government deficit is financed, on the one hand, wholly by printing paper money or selling bonds directly to the banks, or on the other hand, wholly by selling bonds to investors other than banks. Whether the people add 60 billion dollars a year to their income-yielding investments or to their immediately spendable cash is in their opinion immaterial. In effect, they state a belief that the supply of goods affects their price, but that the supply of money which may be offered for goods never affects their price. They therefore deny that the principle of supply and demand has any application to money. This position is also inherent in their criticism of my method of appraising the inflationary pressure of war-financing policies. It is a position which seems to me inconsistent with common sense, with recorded experience of past periods of inflation, with the basic tenets of economic theory, and with Mr. Mosak's treatment of money in his recent book.³

7. Messrs. Mosak and Salant apparently have neglected the nature of the

³ Jacob L. Mosak, *General-Equilibrium Theory in International Trade* (Cowles Commission Monograph No. 7, The Principia Press, Inc., Bloomington, Ind., 1944), pp. 37-38, 54, 58-59, and 64.

banking system as the money-creating industry of the nation. They ignore, both in their criticism of my analysis and in their own "determinate system," the relation of variation in the quantity of money to variation in the volume of assets held by the banking system, the forces which normally operate to prevent inflation by limiting the quantity of assets acquired by the banking system and the rate of such acquisition, the wartime Federal Reserve policies which have in effect invited the banking system to produce not only the increased quantity of money needed to accompany increased production but also an unlimited additional quantity, and the response which profit-seeking enterprises would normally make to such an invitation to acquire income-earning investments at negligible cost.

CLARK WARBURTON*

* The author is principal economist at the Federal Deposit Insurance Corporation. The opinions expressed are personal views only.

Revision or Reaffirmation of Marxism? A Rejoinder

NOTE: Miss Dunayevskaya has been given the customary right to rejoinder; while her note may not constitute "a last word" in any other sense, it must be so regarded in the present round of discussion which followed the publication in the *Review* of "Teaching of Economics in the Soviet Union" and her original article of comment, "A New Revision of Marxian Economics."—Editor

Professors Oscar Lange¹ and Leo Rogin² and Mr. Paul A. Baran³ have challenged my contention⁴ that the recent Soviet article⁵ from *Pod Znamenem Marxizma* (*Under the Banner of Marxism*) marks a radical departure from orthodox Marxism. Although these economists apparently agree that the article is not a revision, but a reaffirmation, of Marxism, they, nevertheless, reach different, even directly contradictory, conclusions on the principal point of theory in the Soviet statement, namely, that the law of value operates under "socialism." Professor Lange affirms positively that Marx "held the view that the theory of value applies to a socialist economy" (p. 128).⁶ Mr. Baran states categorically that the law of value is a "principle ruling the working of a *capitalistic* society" and that the only consequence of trying to apply that notion to socialism "is to deprive the 'law of value' of all its meaning and significance" (p. 869). Professor Rogin avoids any discussion of the concept of value. The confusion among these learned minds suggests the necessity of a restatement of the law of value in its Marxian sense.

¹ Cf. "Marxian Economics in the Soviet Union," *Am. Econ. Rev.*, Vol. XXXV, No. 1 (Mar., 1945), pp. 127-33.

² Cf. "Marx and Engels on Distribution in a Socialist Society," *Am. Econ. Rev.*, Vol. XXXV, No. 1 (Mar., 1945), pp. 137-43.

³ Cf. "New Trends in Russian Economic Thinking," *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec., 1944), pp. 862-71.

⁴ Cf. "A New Revision of Marxian Economics," *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), pp. 531-37.

⁵ Translated under the title, "Teaching of Economics in the Soviet Union," *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), pp. 501-30.

⁶ All page numbers in parentheses refer to the various issues of the *American Economic Review* in which the articles appeared, as cited above.

Professor Lange arrives at the conclusion that the law of value operates in a socialist society through an erroneous construction of two quotations from *Capital*. In the first quotation, from page 90 of Volume I, where Marx is describing "a community of free individuals," he carefully refrains from any use of the word "value." The quintessential point of that whole section on "The Fetishism of Commodities" is to prove that "to stamp an object of utility as a value is just as much a social product as language";⁷ it is the language of "bourgeois economy." Hence, when Marx "by way of a change" speaks of a society other than capitalist, he uses, not the word "value" but the expression "labor time." In the second quotation, from page 992 of Volume III, Marx uses the phrase "determination of value" (*Wertbestimmung*) in the general or descriptive sense meaning evaluation and not in the categorical sense of a *theory* or a *law of value*. Marx had nothing but contempt for those who, like A. Wagner, tried to lift the *theory* of value out of its capitalistic context and transform it into a "universal theory of value." As I showed in my commentary (p. 561), he castigates "the presupposition that the theory of value, developed for the explanation of bourgeois society, has validity for the 'socialist state of Marx.'" He reiterated time and again that "in the *analysis of value* I had in view bourgeois relations and not an application of this theory of *value* to a 'socialist state.'"⁸ In *Anti-Dühring* Engels stated that in a socialist society "People will be able to manage everything very simply without the intervention of the famous 'value.'"⁹

In contrast to Marx and Engels, Professor Lange not only asserts that the law of value applies to a socialist society but further stretches the meaning of "law of value"¹⁰ by saying that in its "pure form" (p. 129) Marx considered it applicable "only under conditions of 'simple commodity production.'" In reality, Marx criticized Adam Smith for just that assertion. Adam Smith, he explains fell into that error because he had "abstracted [the law of value] from capitalistic production and precisely because of this it appears as if it were invalid."¹¹ Starting with the labor theory of value of Smith-Ricardo, he showed that the unequal exchange between the capitalist and the worker was not a "deviation" from the law, but its very basis. He transformed the classical labor theory of value into the theory of surplus value. Value, he wrote, was a social relation of production "specifically capitalistic."¹² *Marx's theory of value is his theory of surplus value.*

Professor Lange confuses the law of value with the formation of price

⁷ P. 85. All references to *Capital* are to the Kerr edition.

⁸ *Arkhiv Marks-Engelsa* (Moskva, 1930), T. V., c. 386. *Archives of Marx-Engels* (Moscow, 1930, Vol. V, p. 386).

⁹ *Herr Eugen Dühring's Revolution in Science* (New York, Internat. Publishers), p. 346.

¹⁰ Professor Lange's promiscuous use of quotation marks for value and law of value, where no such expression is used by Marx, seriously distorts Marx's meaning. (Cf. particularly p. 129, *Am. Econ. Rev.*, Vol. XXXV, No. 1.)

¹¹ *Teorii Pribavochnoi Stoimosti* (Moskva, 1932), T. III, ch. 3, c. 55 (*Theories of Surplus Value* (Moscow, 1932), Vol. III, Part III, p. 55.)

¹² *Arkhiv Marks-Engelsa* (Moskva, 1933) T. II (VII), c. 7. (*Archives of Marx-Engels* (Moscow, 1933), Vol. II (VII), p. 7.)

through a misinterpretation of the Marxian thesis that the lower the stage of production the more do prices reflect values; the higher the stage of production the more do they deviate from value. He considers that if value and prices do not correspond, the law of value does not function in its "pure form" (p. 129). Marx, on the other hand, maintained that the deviation of price from value is not an aberration of the *law* of value but only of its *manifestation*; no matter how individual prices deviate from value, the sum of all prices, according to Marx, is equal to the sum of all values. The law of value remains dominant.

Marx treated market phenomena only as manifestations of the production relationship between capitalist and worker. The organic composition of individual capital, as well as market competition, affects the division of profit among capitalists, but not the surplus value itself. Surplus value is a *given* magnitude arising only from the process of production. Marx insisted that the struggle among capitalists to effect what he called "capitalist communism" was of no concern to the worker. He analyzed these market phenomena only in order to prove the oppressively dominant position of "self-expanding value,"¹³ or the primacy of the production relationship. Professor Lange is much too preoccupied with the formation of price. Marx did not write four thousand odd pages—*The Theories of Surplus Value* Marx intended as part of Volume III of *Capital*—as an essay in price analysis. *Capital* is an analysis of the *capitalist* process of production, the *capitalist* process of circulation and *capitalist* production "taken as a whole." It is an analysis of *no other system*.

Professor Lange, on the one hand, assumes that the U.S.S.R. is a socialist, *i.e.*, non-exploitative order, and, on the other hand, that the dominant economic law of capitalism operates there. By abstracting the exploitative content of the Marxian theory of value, Professor Lange has indeed deprived that theory "of all meaning and significance."

Professor Rogin's central thesis is equally incorrect, although his error is more difficult to isolate because he completely ignores the concept of value and considers only the distributive principle under socialism. Because I called attention to the traditional Marxist principle, "From each according to his ability, to each according to his need," Professor Rogin intimates (p. 138) that I have fallen into the error of "vulgar socialism," which, as Marx has stated, considers "distribution as independent of production, thereby representing socialism as turning principally on distribution." However, my only purpose in referring to the slogan was to show the contradiction between the Soviet doctrine that socialism has been "irrevocably established" in the Soviet Union, and the repudiation of that slogan for that country. Worse than that, the Soviet economists reject another Marxist formula—the payment of labor according to the "natural measure of labor": *time*—which was postulated for a society "*as it emerges from capitalist society*," that is, one still tainted "with the hereditary diseases of the old society" (p. 138). For both these formulas the Soviet economists substitute the principle of "distribution according to labor."

¹³ *Capital*, Vol. II, p. 120.

Professor Rogin apparently accepts the identity of the "natural measure of labor," time, with the new formula, which is explicitly based on the instrumentality of money, the price expression of value. Time and value, however, are not equivalents. To Marx value is not a quantitative relationship but a qualitative relationship, that is, a *class* relationship. He asserted that the analysis of the contradiction between use-value and value in the labor of the worker, considered as a commodity, is his original contribution to political economy, and the pivot around which political economy revolves.¹⁴ According to Marx, it is the use-value of the specific commodity, labor power, that creates surplus value. This is what the Soviet economists have restored for Russia. This is not a "distributive" principle, nor is distribution the specific concern of the Soviet economists. They know that where labor has created no new value, not even a "socialist society" can appropriate and distribute.

The new Soviet formula for distribution is in reality a euphemism for the realities of production. Class relations¹⁵ in Russia compel them to make "surplus labor" the main aim of production. The Soviet economists are only stating in theoretical language that economic reality which was given mathematical exactitude by Academician¹⁶ and Chairman of the State Planning Commission, N. Voznessensky, in his speech to the Eighteenth All-Union Conference of the Russian Communist Party just before the outbreak of the Russo-German war. "The plan for 1941," he said bluntly, "provides for a 12 per cent increase in productivity of labor and a 6.5 per cent increase in average wage per worker."¹⁷ By assuming the existence of "socialism" in the U.S.S.R., and accepting at the same time the principle of "distribution according to labor," Professor Rogin is, in reality, accepting the applicability of the law of value under "socialism."¹⁸

¹⁴ *Capital*, Vol. I, p. 48.

¹⁵ Mr. Baran questions (pp. 869-70) my "gratuitous" assertion that classes exist in Russia since the material he has read points in the "opposite direction." He therefore assumes that I base my conclusion on the wide differentials in income. Income differentials in the U.S.S.R. are not sublimated from all exploitative vices; they too are only a manifestation of the actual production relations. If Mr. Baran cannot accept the evidence of the existence of class differentiations from English works, such as *The Real Soviet Russia*, by J. Dallin (New Haven, Yale Univ. Press, 1944), the chapter on plant managers by Dr. Schwarz in *Management in Russian Industry and Agriculture* by Bienstock, Schwarz and Yugov (New York, Oxford Univ. Press, 1944), and *Workers before and after Lenin* by Manya Gordon (New York, Dutton, 1941), let him consult the original documents on the 1939 population census and the analysis of the occupational classifications, especially of the "classless" group known as the "intelligentsia" by V. Molotoff, the results of the Five Year Plans and the analysis by J. Stalin, as well as the minutes of the congresses and conferences of the Russian Communist Party. All of these offer a fertile field for reflection.

¹⁶ Member of the Academy of Sciences of the U.S.S.R.

¹⁷ N. Voznessensky, *The Growing Prosperity of the Soviet Union* (New York, Internat. Publishers, 1941), p. 40.

¹⁸ Professor Rogin errs grossly in his only evidence of the "ever closer approximation to the ideal goal, 'distribution according to need'" (p. 140). He writes that "an effort has been made to safeguard the minimum of 'individual needs' through the structure of the turnover tax. This ranges from '1 or 2 per cent' of the accounting price of production of consumer commodities which comprise the staple articles of consumption 'up to 100

Here likewise Mr. Baran makes his error. He avers that the Soviet economists' acceptance of the law of value under "socialism" is merely the result of a "terminological muddle surrounding the notion of 'law'" (p. 861). The Russians, however, are not muddleheads. They have deliberately accepted the validity of the law of value for the Soviet Union because in the economic categories used by Marx in *Capital* they have found the theoretical reflection of economic reality. Since, however, Marx's entire analysis of the law of value is based upon its specifically capitalistic content, the Soviet economists were constrained either to revise the concept that the Soviet Union is a "socialist society," or to revise the concept that the law of value is dominant only in a capitalist society. It is not surprising that they chose to revise Marx instead of the Soviet Constitution.

The Soviet economists have solved their dilemma.¹⁹ It is up to Mr. Baran to solve his dilemma of assuming, on the one hand, that Russia is a "socialist society" and, on the other hand, asserting that the law of value is dominant only in a capitalist society. He has deepened his contradictory position by approving the proposal that in the future teachings of political economy the structure of *Capital* be not followed in order that factual information be introduced to "form the backbone of the course" (p. 863). It is not merely a question of supplying factual information—Volume I, the most abstract volume of *Capital*, is full of historical and statistical data. It is a question of severing the indissoluble connection between the dialectical method of Marx and his political economy. It follows inexorably from the break with the Marxian concept of the law of value. Soviet economic theory finally reflects economic reality. Does Mr. Baran propose instead that the reality and the theory reflect his presupposition that Russia is a "socialist society"?

RAYA DUNAYEVSKAYA*

* The author is a Russian economist, now living in New York, who has specialized in the study of Marxian economics.

per cent' in the case of outright luxuries" (pp. 140-41). Actually, the low tax of 1 or 2 per cent is levied, not on consumer goods, but on certain capital goods and instruments of production. The turnover tax follows a pattern contrary to his whole conception. The average rate of tax on consumer goods is 50 per cent; it is 20.3 per cent on the products of light industry and 82.8 per cent on agricultural products. The tax on individual commodities is even more revealing of the trend to "safeguard the minimum of 'individual needs'"; it is 48 per cent on calico, 37 per cent on silk, and 75 per cent on bread. (*Cf. Biulleten Finansovovo y Khozyastvenovo Zakonodatelstvo*, 1934, No. 25, and 1935, No. 6 [*Bulletin of Financial and Economic Legislation*]). This official document is treated in English by A. Yugov in *Russia's Economic Front for War and Peace* [New York, Harper, 1942], and by L. E. Hubbard in *Soviet Labor and Industry* [London, Macmillan, 1942], as well as in many other books and articles.)

¹⁹ That this is not a mere personal solution, but the official Soviet doctrine, finds further corroboration in the authoritative journal, *Propagandist*, organ of the Central Committee of the Russian Communist Party. The September, 1944, issue carries an article entitled "Socialist Economy and the Laws of its Development" by K. Ostrovityanoff, member-correspondent of the Academy of Sciences of the U.S.S.R., who expounds the new position that the law of value operates in Russia, thus reversing his previous stand in the heretofore standard Soviet textbook, *Outline of Political Economy: Political Economy and Soviet Economy* (New York, Internat. Publishers, 1929).

Pragmatism and Economic Theory: Rebuttal

Dr. Otto von Mering criticizes¹ my suggestion that significant new developments in economic theory may be investigated by viewing policy as the operational meaning of theory. According to Dr. von Mering an acceptance of my position would degrade economic theory to a level of propaganda whereby it would be employed as a mere tool for playing tricks and as an instrument "to rule society." These are serious charges and cannot be left unanswered.

First, it should be pointed out that Dr. von Mering's criticisms are typical of charges which non-pragmatists make of the pragmatic position in philosophy and in other fields where this method of inquiry has been employed. Pragmatism has been accused of degrading philosophy to a "mere means to better dinners," as Bertrand Russell says in the quotation given by von Mering, and as Russell and others have asserted on numerous occasions.² Such charges against the scientific pragmatism of John Dewey have even less credence than the frequent assertion that Pareto, whom von Mering champions, was the intellectual father of Italian fascism. The prediction that "disastrous consequences" and "catastrophic results" would follow from the adoption of my position is on the same level as an assertion that fascism would result from an acceptance of von Mering's application of Pareto's interpretation to economic theory. But this is polemics and not scientific discussion.

A second difference between us has to do with social bias as it affects economists and other social scientists. We both recognize that bias presents a problem in the formulation and evaluation of economic theory. This arises because, as Dr. von Mering says, "experience inevitably gives us only a very incomplete picture of the actual economic world."³ Having recognized the problem of bias, the question becomes what to do about it. Dr. von Mering's position, though unclear, seems to be that by recognizing bias we may eliminate it as a problem.⁴ My position is that it is not sufficient merely to recognize the presence of bias; a way must be found for evaluating a system of theory which is acknowledged to contain such bias. A characteristic of the great economists, including Keynes, has been that they have made use of their biases, in working out their economic theories, although they may have been for the most part unconscious of these biases.

The first task in evaluating a body of economic doctrine is to discover the

¹ *Am. Econ. Rev.*, Vol. XXXV, No. 1 (Mar., 1945), pp. 145-47.

² In reply to Russell's statement that he found the "love of truth obscured in America by commercialism of which pragmatism is the philosophical expression," Dewey remarked that Russell's criticism was "of that order of interpretation which would say that English neo-realism is a reflection of the snobbish aristocracy of the English and the tendency of French thought to dualism is an expression of an alleged Gallic disposition to keep a mistress in addition to a wife." John Dewey, in *The Philosophy of John Dewey* (Evanston, Northwestern Univ. Press, 1939), p. 527.

³ *Am. Econ. Rev.*, Vol. XXXIV, No. 1, p. 97.

⁴ *Cf. Am. Econ. Rev.*, Vol. XXXIV, No. 1, p. 94.

meaning of the abstract concepts and propositions contained in the system. My *general* suggestion is that the operational approach, which has proved so useful in other fields, may be useful in this connection in economics. Dr. von Mering tolerates the operational method in natural science, but he apparently rejects its use in economics, and objects violently to my particular application of it in the latter field. The operational approach means that concepts are to be stated in terms of "operations," which in economics means in terms of alterable behavior, or plans of action. My *particular* suggestion is to use the operational method of inquiry to suggest hypotheses for relating distinctive theoretical concepts in a body of theory like that of Keynes's to concrete proposals by the same theorist in the field of policy. I have contended and am willing to defend in detail the proposition that the meaning of Keynes's theory as a whole and of his special concepts like liquidity-preference, marginal propensity to consume, and marginal efficiency of capital is to be found in relation to Keynes's program of reform. This is the essence of my suggestion that policy may be viewed as the operational meaning of theory. Dr. von Mering may legitimately question the usefulness of this approach, but it obviously has nothing to do with any desire to rule society, to vindicate particular policies, or to play tricks on unsuspecting people. It is, like Peirce's pragmatic maxim, a suggestion for the clarification of ideas, which in turn is prerequisite to scientific evaluation of economic theory and policy.

I have criticized Dr. von Mering for failing to make a clear-cut distinction between meaning of theory and workability of program. Not until the meaning of a theory has been established in terms of alterable behavior (plan of action) are we in a position to raise the further question of the validity of the system of thought. Since any body of doctrine contains within it special practical and ethical presuppositions, its concepts and propositions cannot legitimately be criticized in terms of the concept and propositions of another system of theory, which has different practical and ethical presuppositions. Having previously discovered the meaning of the concepts, we are in a position to raise the further question of the workability of the course of action with which that theory is associated, *i.e.*, for which it is an argument. Whether or not the program can realize the practical and ethical aims in terms of which it is projected is to a large extent a matter of historical circumstances, such as the prevailing state of the industrial arts.

One of the great faults of economics is that what passes for scientific criticism is hardly more than polemical dogmatism in which one set of practical and ethical values is used as the basis for criticizing another set of practical and ethical values. Instead of lowering the quality of discussion among economists, as Dr. von Mering alleges, the adoption of the above suggestions would, I believe, provide the best possible means for elevating the quality of discussion and criticism in the field of theoretical economics.

DUDLEY DILLARD*

* The author is associate professor of economics at the University of Maryland.

Pragmatism and Economic Theory: A Final Word

In reply to Dr. Dillard's rebuttal, I express my satisfaction with his admission that great economists, including Keynes, "may have been for the most part unconscious of [their] biases." This statement comes very near to Pareto's standpoint and shows that Dr. Dillard—though probably unwittingly—has given up the operational approach of pragmatism. A pragmatist does not proceed unconsciously, but fully realizes the practical purpose of his theory.

The proposition "that the meaning of Keynes's theory as a whole and of his special concepts like liquidity-preference, marginal propensity to consume, and marginal efficiency of capital is to be found in relation to Keynes's program of reform" is compatible with the Pareto-aspect, and if this proposition "is the essence of [Dillard's] suggestion that policy may be viewed as the operational meaning of theory," I have no objection, except that the term "operational meaning" is misleading.

Dr. Dillard seems to overemphasize the problem of whether a program is workable. The workability of social planning does not depend on what kind of "operational concepts" are used. It is therefore difficult to see why the knowledge of these concepts should be a prerequisite for the appraisal of the program's workability.

OTTO VON MERING*

*The author, formerly a professor at the Handelshochschule, Berlin, is now lecturer on economics at Tufts College.

A One Per Cent War?

Professor Samuelson's brilliant article¹ is an invitation to write a few pages on the important issue of Treasury lending policies. My remarks are more supplementary to than critical of his article. He has shown with remarkable lucidity the immediate gains to be obtained by banks from a rise in the rate of interest.

A Two Per Cent War

I should like to devote myself largely to Professor Samuelson's suggestion that this should have been a one per cent rather than a 2 per cent war. Actually the computed rate of interest on the 230 billion dollars of outstanding federal debt at the end of 1944 was 1.916 per cent. This compares with the computed rate of 2.534 per cent on the 45 billions of public debt in 1939. Thus, a quadrupling of the debt seems to have been accompanied by a decline in its average rate of interest of almost one quarter. As the following table shows, however, there have been over this period important changes in the asset composition of the total public debt with a shift away from marketable long-term bonds in favor of shorter issues and non-marketable issues.

¹P. A. Samuelson, "The Effect of Interest Rate Increases on the Banking System," *Am. Econ. Rev.*, Vol. XXXV, No. 1 (Mar., 1945), pp. 16-28.

*Composition of Interest-Bearing Public Debt, 1940 and 1944—
By Percentage of Total*

<i>Composition of Public Debt</i>	<i>June, 1940</i>	<i>December, 1944</i>
1. Bonds, marketable	63	40
2. Bonds, non-marketable	8	18
3. Notes, marketable	15	9
4. Notes, non-marketable	—	5
5. Certificates of indebtedness	—	14
6. Treasury bills	3	7
7. Special issues	11	7
	100	100

Source: *Treasury Bulletin*, April, 1945, p. 22.

The Treasury may take comfort in the fact that average rates of interest in the last war were at least twice as high as in the present. Part of the decrease in the cost, however, stems from the fact that today, more than in the last war or in 1940, greater reliance is placed upon short-term and special issues. Consequently, if the current pattern of rates has to be changed drastically in the early post-war years, the saving on interest charges may be transitory and illusionary. On the other hand, the 35 billions of non-marketable Treasury bonds are so priced with respect to redemption as to discourage excessive sales by investors prior to final maturity date.

That most of the reduction in the average interest rate is due to an increased weighting in the direction of the lower-yielding short-terms is shown by the following comparisons: although the over-all average interest rate decreased from 2.260 per cent to 1.925 per cent from 1942 to 1944, the yields of taxable federal bonds (7-9 years) increased from 1.93 per cent to 1.94 per cent, and the yields of longer maturities (15 years or more) increased from 2.46 per cent to 2.48 per cent.

This is not the place to do more than mention just how the reductions in the computed rate of interest have been achieved: by the Federal Reserve's making large amounts of cash available to banks through open market operations, by the using up of excess reserves, and by the unwillingness of banks to risk a rise in long-term rates—all of which encourage the purchase of large amounts of low-yielding short-term securities. Furthermore, there has been a deliberate Treasury policy of tailoring yields to the market requirements of different groups with some savers being privileged to buy relatively high yielding issues while banks are confined to lower yielding ones.

Profits of Banks

Let us now review the earnings of banks with special attention to earnings on government issues, for criticism is generally directed against the high rates paid to banks. In general, banking has not been so profitable as most business enterprises. Preliminary figures for 1939 to 1943 seem to indicate that the percentage rise of profits of corporations before taxation was six

times as great as the rise of *net* income of banks and trust companies; the rise after taxation was four times as great for all corporations as *net income* of banks and trust companies. That the banks did not do as well as other corporations is revealed also in tax figures. Income and excess profits taxes of banks and trust companies rose sevenfold in the years 1939 to 1943, a rise substantially less than for all corporations; and *all* taxes of *member* banks rose by but one and one-third times.

In an appraisal of lending policies, we should not neglect the tax aspects. Interest rates earned are not so high as they seem if allowance is made for the increased burden of taxes. We may conclude that, in general, the profits of banks have been kept down relative to profits of all corporations. The explanation, in no small part, is the marked expansion of the product sold, *i.e.*, money; and hence the decline in the price per unit, *i.e.*, the rate of interest obtained on loans and especially on government issues. In determining what issues might be purchased by the banks and in what amounts, the Treasury, moreover, imposed an effective type of price control and a limited profit control upon the banks.

A more detailed glance reveals that from 1939 to 1943 the rise of profits of member banks (other than on capital account) is explained almost exclusively by the increased earnings on securities. From 1942 to 1944, earnings of member banks rose by 385 million dollars and earnings on securities even more—by 420 millions. In the same period, taxes on net income of member banks rose by 116 millions. These taxes equaled 22 per cent of net profits before taxes. If we assume that taxes on bank dividends are at the rate of 40 per cent, the net yield on Treasury issues held by banks might roughly be put at one-half of the gross yield of 1.4 per cent, or 7/10 of one per cent. *The upshot of all of this is that the yield on Treasury issues held by banks is 1.4 per cent before taxes and substantially less than one per cent after profit and income taxes.*²

Perhaps the vital issue is the rate of interest paid to banks. At the end of 1944, the commercial banks held 78 billion dollars of public securities, or about 34 per cent of the outstanding interest-paying debt. I am not discussing the 19 billions held by Federal Reserve banks or 8.3 billions held by mutual savings banks. As to the former, the dividends are restricted; and mutual savings banks purchase securities as middlemen for small savers.

It has been pointed out above that the banks have not gained as much as other groups. There are, of course, many reasons why their gains should be kept down and possibly even more than they have. In view of the fact that the manufacture of money is a government prerogative delegated to the banks; in view of the protection given banks by the guaranty of deposits; in view of the small risks involved in buying government securities as a result

² We should emphasize here that the reduction of rates by one-half calculated here allows not only for income taxes paid by the banks but also for income taxes paid by stockholders. If allowance were only made for taxes paid by banks, the corrected rate would be around one per cent. I am not raising here the vital question as to whether the appropriate rate is *before or after* taxes. I have discussed this issue fully in my *Price and Related Controls in the United States* (New York, McGraw-Hill, 1945).

of the banks' interest in short-term issues and the government's determination to keep prices of all issues up—in view of all these considerations, one might be critical of Treasury policy on the grounds that rates to banks have been too high. Perhaps the best solution would have been to allow the banks to charge costs plus a normal mark-up, the latter to be adjusted to the volume of business. The cost-plus principle is shunned by government negotiators. Yet the Treasury has allowed the banks to get more than cost-plus and for a period beyond the war. To those who would reply that industry in general has received more than cost plus a reasonable profit on war contracts, I would merely say that the case for being generous with the banks is less strong than for industry in general. And government policy in relation to industry may well have been overgenerous. The manufacture of money is the simplest of operations; and the costs are easily checked. Clearly incentives for large and expeditious production are not required.

Yet the general conclusion is that for the banks this has been less than a one per cent war, that a reasonably good job has been done in keeping banks from profiting excessively from war financing; that a higher rate policy would not have been wise; and, finally, that a one per cent rate to individual borrowers may have discouraged savings substantially.

In Defense of the Treasury

It is no small achievement to issue more than 200 billion dollars of securities in a period of five years and at rising or stable bond prices. Many factors, of course, contributed to low rates: the expansion of money, which made possible expanding incomes and expanding demand for Treasury issues; the introduction of controls (of use of materials, manpower, credit, etc.) which prevented commodity prices from rising greatly. If commodity prices had risen greatly, the public would have been less disposed to hold securities and prices of securities would have fallen and yields would have risen. All of these factors helped greatly. But the Treasury deserves much credit for segregating markets to a greater degree than ever before: a high rate is paid when it is required (e.g., sales to individuals) and lower rates when the incentive of higher rates is not required (e.g., sales to banks).³

Some would argue for higher rather than lower interest rates. At the peak of the war effort, inflationary sales, *i.e.*, mainly sales to commercial banks, averaged around 25 billion dollars (annual rate). This compares with approximately 40 billions of private savings, and 35-40 billions of sales out of gross savings. (A large part of the cash required to pay for Treasury issues comes out of savings other than individual net savings, e.g., depreciation funds, corporate net savings.) It is conceivable that at some higher rate of interest it might have been possible to eliminate the inflationary sales. Assume that, with an interest rate of 2 per cent on the average, the public spends 95 billion dollars, saves 40 billions and pays in personal taxes 20 billions—the 1944 pattern, in fact. At what interest rate would the public

³Issues in this section are discussed more fully in my forthcoming book, *Inflation and the American Economy*.

have increased its annual savings and reduced its consumption by 20 billions? (What is required is not the use of hoarded cash but purchases at the expense of consumption. If the public increased its purchases by 20 billion dollars out of its additions to cash and deposits—savings of 40 billions were only used to the extent of one-half to buy Treasury issues—then the *present* inflationary pressures would not have been reduced greatly.) I do not know what the exact rate of interest should have been to discourage consumption and stimulate purchases of securities sufficiently to achieve the desired effects. I am reasonably certain, however, that a higher-rate policy would not have been the wise policy. The gains through a rise of savings and reduced commodity prices (relatively) would probably not have been large, whereas the financing costs would have risen greatly. How greatly depends upon how long the higher rates would have had to be paid. It is extremely dubious, for example, that a rise in the rate of interest by 2 per cent would have increased savings by 20 billions. Yet this might have cost 4 billions per year. (I assume that more than two-thirds of the wartime rise in debt would be subject to the additional charge.) *If* the cost of the war could have been cut by 30 billion dollars through a relative decline in commodity prices of 10 per cent or somewhat more (resulting from the reduced sales of bonds to banks and hence the smaller expansion of deposits) and *if* the high rates of interest would have to be paid only for relatively brief periods, this policy of high rates would have been sensible. But neither of these results would probably have been had.

SEYMOUR E. HARRIS*

* The author is associate professor of economics at Harvard University.

The Effect of Interest Rate Increases on the Banking System

In the March, 1945, issue of the *Review*, Paul A. Samuelson sets out to prove that "the banking system as a whole is not really hurt by an increase in the whole complex of interest rates"¹ and pleads for discussion of these subjects by the "wise men."² This plea leaves anyone who might wish to comment on this article in the temerarious position of being accused of thinking himself to be a "wise man." This difficult position becomes somewhat more tenable, however, when one realizes that his evaluation of a "wise man" is subject to a substantial discount since he believes that barbers know more about banking practices than bankers do.³

Samuelson found, after studying the maturity schedule of United States government securities held by banks, that a one per cent increase in the whole complex of interest rates would only lower the value of their total holdings 3.29 per cent, and he asserts that this amount would be earned

¹ Paul A. Samuelson, "The Effect of Interest Rate Increases on the Banking System," *Am. Econ. Rev.*, Vol. XXXV, No. 1 (Mar. 1945), p. 16.

² *Am. Econ. Rev.*, Vol. XXXV, No. 1, p. 27.

³ Paul A. Samuelson, "Hansen on World Trade," *New Republic*, Vol. 112 (1945), p. 410.

back within three years. This conclusion follows from the unrealistic interest rate structure assumed by Samuelson and after making a slight error in computing the ratios of new to old capital values. (While the academician will find such an error trifling, to the average banker it might mean the difference between a profit and loss on the bond transaction.) What is somewhat surprising is that Mr. Samuelson should have taken so much pains to make a calculation of this type when even the lowliest bank clerk could have told him, even if his barber could not, that banks are endeavoring to maintain a short position in order to minimize the loss which a rise in interest rates with a longer position would produce.

Mr. Samuelson used in his calculations the United States Treasury report on the ownership-distribution of U. S. government securities as of February 29, 1944. Thus it will be noted that his figures are on a "due or first becoming callable" basis. With a rise in interest rates it is extremely unlikely that any securities will be called in order to refund them into securities bearing a higher coupon. Consequently, such calculations should be made on a "maturity" basis. However, using his figures, it might be well to note that a 3.29 per cent decline in the value of U. S. government securities would have impaired at that date about 25 per cent of the total capital invested in banks.

It should be pointed out that the banking system would recover these losses over a period of time, the length depending upon the maturity distribution. During that period, it would be "frozen in" to a given maturity pattern. Mr. Samuelson seems to feel, however, that earnings of the banking system *upon the existing portfolio* would increase. He states that "immediately after interest rates have risen and capital values have scaled down, *all parts of the portfolio*, old as well as new, began to earn the higher rates."⁴ He argues that this is true because the earnings will be made up not only of the coupon return but of the amortization of the discount, and this will mean new higher earnings. From the point of view of the banking system, however, these "new higher earnings" will be purely nominal. In "writing down" capital values, losses will be established and the amortization of discount will merely recover these losses.

In another place, he suggests that the bonds can be carried at cost. (He probably means amortized cost.) If this is done, then it should be obvious that the return will remain the same. The "new higher earnings" will not materialize until re-investment takes place. But it should be emphasized that the re-investment will not be possible until the securities mature. A rise in interest rates is not, therefore, going to be the immediate bonanza for banks which Mr. Samuelson seems to envisage.

Mr. Samuelson states further that if his argument is "rightly interpreted, it will be seen that mine is an argument against interest rate increases, not in favor of them."⁵ The logic of arguing for a lower rate of interest on the ground that an increase would not hurt the banking system is difficult to understand, but apparently it follows from his argument, already commented

⁴ *Am. Econ. Rev.*, Vol. XXXV, No. 1, p. 23.

⁵ *Am. Econ. Rev.*, Vol. XXXV, No. 1, p. 24.

upon, that a higher interest rate structure would mean greater earnings for the banking system. This is certainly not the place to discuss bank earnings, although it can be shown that comparatively they are not excessive. The point to be emphasized is that it seems quite obvious that the structure of interest rates should be fixed, if it is to be subjected to regulation, after considering factors other than bank earnings. If the economy demands a lower structure of interest rates, a more conclusive argument surely could have been advanced by Mr. Samuelson and his barber.

Mr. Samuelson also asserts that this could have been a one per cent war rather than a 2 per cent one. He dismisses the statement that interest rates might have an effect upon private consumption and investment, although he concedes that "they may have had some minor effect upon the form in which wealth is held."⁶ He does not choose to explore this possibility further, although it is deserving of additional analysis. It must not be forgotten that the banks are not for the most part permitted to subscribe to securities in war loans and are not even permitted to purchase certain types of securities available to other investors in the open market. They have been restricted to short-term, low interest bearing securities. One of the reasons that banks have been able to purchase these securities is that corporate and other investors have preferred to hold deposits. If corporations and others purchased securities, then the banking system would have had less funds to invest. This fact is very seldom realized by those who discuss the question. Like Mr. Samuelson, I do not wish to go into this subject because it is extremely complicated but it may be suggested that the interest rates offered to corporate and other investors are insufficient to induce them to part with liquid funds. To induce these investors to invest liquid funds, *i.e.*, to change the form in which wealth is held, might have required higher rates of interest than those paid on securities held by banks. In discussing the interest rate at which this war is being financed it is well to consider this fact. This again emphasizes the fact that the fixing of a given structure of interest rates can only be undertaken after considering a great many factors.

There are a great many aspects to this problem which Mr. Samuelson has not discussed and I have not raised them here. My only objective has been to point out that, if a lower structure of interest rates is desirable, a much stronger argument than the fact that the banking system would not be hurt by a rise in the structure of interest rates should be cited. The determination of a structure of interest rates in wartime should only be undertaken after considering needs of the economy, the investment responses of savers to various interest rates, the relative costs incurred by the government, and the inflationary or deflationary results of various methods of financing. Finally, it has been pointed out that the banking system is following consciously a portfolio policy which will result in as little loss as possible in the event that the structure of interest rates might rise.

GEORGE W. COLEMAN*

⁶ *Am. Econ. Rev.*, Vol. XXXV, No. 1, p. 27.

* The author is an economist associated with the Mississippi Valley Trust Co., St. Louis.

The Turn of the Screw

I

It would be churlish of a writer who has issued a trumpet call for wisdom not to accept it gratefully from all sources. Professor Harris's comments are most welcome, particularly since I am in agreement with many of them. Also, I must admit that there is some interest in Mr. Coleman's suggestions in connection with my previous paper that maturity dates as well as call dates be used in reckoning bond yields. In better days of peace ahead, if time hangs heavy, this additional arithmetic can be computed.

But I should by no means accept the relevance or validity of the rest of Mr. Coleman's comments. The differences between us are important and many, but most have little to do with anything discussed in my article, where I explicitly abstained from analysis of the desirability of low and lower interest rates. For what they are worth, my views on this subject are expressed in popular form in a debate with a formidable opponent, H. Christian Sonne; the interested reader may be referred to the January issue of *Modern Industry*. Although owning up to the fact that a sample of 50,000 top management executives proclaimed me the loser by a 3 to 1 landslide, I remain unrepentant.

But rather than enter upon this controversial subject, in a titanic battle between Mr. Coleman's bank clerk and my economic sophomore, it would be more useful, I think, to survey in a cursory fashion the dramatic changes that have taken place in the government bond market, especially since the summer of 1944 when my article was written. In doing so, I hope that I may be forgiven for the Reinhardt-like procedure of answering to my own horn.

II

When the war broke out, the financial community, aware of the movement of interest rates in previous wars and of the great financial needs of the government, anticipated higher interest rates. Instead the Treasury in effect guaranteed in the fall of 1942 a definite pattern of interest rates about as follows: $3/8$ per cent on 90-day bills; $7/8$ per cent on 1-year certificates; $1\frac{1}{2}$ per cent on 4-4 $\frac{1}{2}$ year notes; 2 per cent on 8-10 year bonds; $2\frac{1}{2}$ per cent on long-term bonds. And at the same time, the Federal Reserve banks, in effect, took upon themselves the task of seeing that there would be adequate bank reserves to meet the needs of government finance and to support the bond market.¹

Such a guaranteed structure in itself represented something of an anomaly since the pre-war structure of short-term rates persistently far below long-terms was a reflection of the fact that the existing structure could *not* be guaranteed to persist. In the new state of affairs it became practically a

¹ On these matters see the excellent treatment, C. R. Whittlesey, "Bank Liquidity and the War" (New York, Nat. Bur. of Econ. Research, 1945, Occasional paper 22); also, the March, June, and July, 1945, issues of the National City Bank of New York's Newsletter.

sure thing to buy the higher yielding securities; indeed by purchasing 2 per cent with eight years to run, one could confidently count on a capital gain of $\frac{1}{2}$ per cent per year as they approached the $1\frac{1}{2}$ per cent yield of four-year maturities.²

As Mr. Coleman remarks, every lowly bank clerk knows that banks have been speculating on or hedging against, a rise in interest rates. But not even bank presidents have been able to explain why they persisted in so odd a belief when in every year of the past decade (except for three transitory flurries) it proved to be wrong. In fact, those few banks which broke away from this obsession, repeatedly scored higher yields and capital gains by concentrating upon longer durations. A spinster who sees a man under her bed once can be forgiven. But what are we to think of the judgment of anyone who cries wolf for eleven years?

After the Treasury guarantee of the rate structure, it is to be wondered that there was not a greater shift to higher yielding bonds. Apparently, the government's guarantee was not understood or not taken seriously. In addition, banks were forbidden to participate directly in the later Victory Loan drives, and the new longer issues were barred to commercial banks (except for small amounts related to saving deposits) for considerable periods of time.

Gradually, however, the suspicion began to infiltrate the market that the longer maturities were better buys, and the Federal Reserve actually had to sell some few long-terms in 1943 to help maintain the structure, at the same time that it kept the buying and selling peg on $\frac{3}{8}$ per cent bills.

When in November, 1944, the British gave the easy money screw another twist by replacing the $2\frac{1}{2}$ per cent 52-50 with $1\frac{3}{4}$ per cent 50, the American money market belatedly realized that the U. S. Treasury had a firm grip on the money market and was in a position to push for lower rates. This realization, by causing purchase of intermediate and longer issues and sending their yields down, created its own fulfillment. Since then, banks and other investors have been reaching out for the longest maturities available to them.

Thus, the yield curve has shifted and twisted downward. The market is split now into three parts with ascending yields: partially tax exempts eligible for bank investment; fully taxables eligible for bank investment; fully taxables not now eligible for bank investments. The latter category is essentially a new phenomenon, inviting careful study by economists.

III

So much for the factual survey of the reasons why the Treasury has a firm grip on the bond market. What future policies are implied?

First, bond drive oversubscription should cease to be a dominating goal of policy. It is to be hoped that the new Secretary of the Treasury, Mr. Vinson, will stop regarding bond selling drives as glorified community chest campaigns and morale builders, except with respect to Series E, F, and G sales.

Second, if the Treasury's victory is not to be an empty (and wanton!) one, it is time for another turn of the "cheap money" screw. The $2\frac{1}{2}$ per cent

² Everett Smith, "Securities for the Bond Portfolio," *Federal Home Loan Review*, May, 1945, p. 220.

market issues should be replaced in future Victory Loan drives by not more than $2\frac{1}{4}$ per cent issues, with further downward pressure all along the line. As the July, 1945, monthly news letter of the National City Bank of New York puts it so well: "Undoubtedly a helpful factor in *preventing* a further decline in long-term interest rates generally would be for the Treasury to make clearer its intention to continue issuance of $2\frac{1}{2}$ per cent bonds in subsequent war loans" (p. 75; my italics).

In a sense, it would be more correct to say that the screw has already turned itself, with little credit due to the Treasury. But at least the screw's thrust should be used to lower the carrying charge of the public debt, rather than simply create profits for existing holders, free-riders, and margin purchasers. Cheap money arrived at by drying up the supply of securities to banks is nugatory, representing little more than a punitive drive on bank earnings.

The semblance of logic for such a move is provided by the unsubstantiated belief that bank purchases of government bonds are essentially more inflationary than sales to ordinary buyers of market issues. In view of the pledge of both political parties to maintain bond prices—*i.e.*, their ready convertibility into cash—and in view of the fact that market issue purchases rarely come out of income and rarely represent a permanent renunciation of consumption, there is little in this notion.

The announced policy of Secretary Morgenthau that there will be no refunding of all short-term debt after the war is an eminently sound one and should be strongly reaffirmed. The great premium placed upon liquidity by our financial institutions and the gullibility of investors concerning a rise in yields should be harnessed for the benefit of the taxpayer. The notion that short-term debt "hangs over the market" is no more tenable than a similar notion applied to bank deposits payable on demand. The constant turning over of the debt is not essentially different from the turning over of bank deposits, and should give the Treasury no cause for alarm—unless, indeed, it too is a victim of the obsession of rising rates!

Mr. Vinson enters upon office with all the wartime powers of the Treasury at full tide. In many respects, his peacetime powers will be even greater. It is a propitious moment, I believe, to initiate, while in admitted strength, determined policies in the nation's long-run interest.

PAUL A. SAMUELSON*

* The author is associate professor of economics at Massachusetts Institute of Technology.

Correction

In the tabulation of "World's Output of Work" by T. T. Read, published on page 114 of the March 1945 *Review*, the figure for the "Daily Output per Capita Hp-Hr., 1939," by Russia was given as 0.21. It should read 2.21. We regret any confusion resulting from this typographical error.

BOOK REVIEWS

Economic Theory; General Works

World Economic Development—Effects on Advanced Industrial Countries. By EUGENE STALEY. (Montreal: Internat. Lab. Office. 1944. Pp. v, 218. \$1.25.)

This study which Mr. Staley has prepared for the International Labor Office examines the consequences, particularly to industrial countries, of the economic development which is expected to take place throughout much of the world in the period following the war. The book is well written and timely. Its main conclusion is best stated in the author's own words: "The general thesis which emerges from this study is that economic development of new areas brings both opportunities and dangers to existing industrial areas, but that it is definitely possible, by policies of mutual coöperation and intelligent adaptation, to make the advantages far outweigh the disadvantages." The book outlines what these opportunities, dangers, and policies of coöperation and adaptation are, and how they may be dealt with.

The book is a strong plea for national and international actions to facilitate world-wide economic development, and to accompany this development by "sound" economic policies. In presenting the substantial benefits to be gained from a development program, and especially the importance that such a program be accompanied by economic as opposed to uneconomic policies, he has emphasized, perhaps unintentionally, the wide gap that exists between that which is economically desirable and which ought to be, and that which is feasible and in practice attainable. The book is not to be considered in any sense unrealistic, and yet many of the benefits which it holds before us seem unfortunately beyond reach.

The advantages of a multilateral form of developmental operation which would encourage a more efficient use of world resources—the savings of one country being available to buy capital equipment in third, fourth, etc., countries—are clearly presented in the discussion regarding an international development agency; but lending countries are in fact strongly inclined toward tied loans. The author warns against restrictive policies which would interfere with multilateral settlements. The prospects, however, do not appear bright that restrictions will be light during the next decade or two.

The attainment of the objectives of the Atlantic Charter, "economic advancement and social security . . . freedom from fear and want," and improved living standards are possible, he points out, only through vastly increased production. This means capital investment. Such investment will take

place in undeveloped countries regardless of whether the advanced countries coöperate, as illustrated by Russia's experience. A program of coöperation and adaptation is, however, very much to the interests of all.

Considerable attention is given to the effects of foreign investment upon cyclical fluctuations. The author recognizes that fluctuations in domestic investment are much more significant, but believes that proper timing of foreign investments and a program of selectivity as regards types of goods exported under such a program, can help materially to retard excessive activity and to relieve depression. He urges the special importance of stability and continuity in an investment program. Here he will have the hearty approval of most economists.

The multiplier effect of capital exports, he believes, would not work in reverse to create depression as a result of repayments; since repayments are far in the future, the principal may remain abroad or its return at any event be gradual, and time would exist for adjustments such as a decrease in the rate of saving. Moreover, it is impossible to project fears or hopes far into the future, while in the meantime definite advantages are to be realized from facilitating foreign development.

An interesting part of the book is the historical analysis of development in several countries, the United Kingdom, United States, France, Germany, Japan, the U.S.S.R., etc. In all cases but the U.S.S.R. an increase in foreign trade has accompanied internal development. This exception he explains by the great variety of U.S.S.R. resources, state control over trade, and the speed with which industrialization was pushed and channelled into heavy industries in anticipation of war.

Figures show that as countries develop they import more of all the major categories of commodities. On the export side they export more finished products, and usually more crude materials and foodstuffs, although the two latter groups may decline relatively. The evidence tends to refute the idea sometimes advanced that increased industrialization and improved technology tend to promote self-sufficiency and to reduce world trade. Specialization continues with economic advancement. Some of the older kinds of manufactured goods may remain static or decline, but other kinds of goods increase in demand.

A lesson for older countries is that they should endeavor to adapt their production to newer kinds of goods. If economic development is to yield its best results, the older industrialized countries must actively assist such adaptation and adjustment. Much can be done, Mr. Staley believes, in this field through surveys, the dissemination of information, and direct assistance to carefully selected infant industries in the form of cash or training of workers.

Possible criticisms of the book are minor. There is some repetition of argument and belaboring of matters obvious to an economist. On the other hand, in view of the widespread popular misunderstanding in this field, a little extra driving home of a point is not amiss. While the book is readable to the layman, it has much to offer the economist. It constitutes a valuable contribution on an important subject and merits a wide distribution.

Washington, D.C.

JOHN PARKE YOUNG

The Institutional Theory of Economics. By RADHAKAMAL MUKERJEE. (London: Macmillan. 1942. Pp. xv, 376. 10s. 6d.)

This is a significant book dealing with an insistent and persistent problem in the development of economics. Not so many years ago the American Economic Association at its annual meetings devoted two successive round tables to a discussion of the importance and contributions of the institutional approach to economics. As an interested observer of these proceedings, it seemed to the present reviewer that this controversial subject had not exactly been placed in the hands of its friends. After setting up what seemed very much like a straw man at the first annual meeting, the next annual meeting tried to give him decent, if not Christian, burial. The ghost of the dear departed has since returned in an embarrassing series of appearances of which the subject matter of this review is only the most recent.

The author of the *Institutional Theory* is professor and head of the department of economics and sociology at Lucknow University, India. He has written, edited or co-authored a respectable series of works pertaining to general economics and Indian economics on both its theoretical and applied sides and to sociology in its regional and ecological aspects. The present work is the outgrowth of some of these earlier studies in which he "stressed the regional and institutional background of economic theory and its re-orientation so as to bring it in line with recent advances in human ecology, anthropology and psychology." The author further states that the volume is "intended as a contribution toward the re-orientation of methods and concepts of economics on relationistic and institutional foundations and toward a coöperation in the social sciences which might reëstablish economic theory on the broad, humane path of the early masters to which the contemporary trend in ethics and philosophy also invite economics."

Mukerjee begins his exposition of "the institutional theory" by reviewing the assumptions of classical and neoclassical economics to show how the institutional factor has been treated. This is necessary in order to establish that the "rational will and individual choice play a much lesser role than what the founders of the various social sciences, who have made the individual the starting point of their analysis and logical action the social norm, imagined." In contrast he contends for the organismic view of relations between the individual and society in which institutions harmonize between instinct and reason, between individual and group interests, and between intrinsic and higher ends and instrumental and lower ends. Institutional economics is therefore concerned with the conditions for establishing a "social equilibrium." He finds three levels of economic environment: the ecological, the mechanical-technical and the institutional. This leads him to distinguish three kinds of economics, following the typological procedure of Max Weber and Werner Sombart. Ecological economics is concerned with the man-land or population-resources ratio. Price economics is concerned with the laws of exchange in which the cultural and ecological factors are taken for granted. In contrast institutional economics is concerned with the ways man has developed of adjusting himself to his environment. This is a cultural process which leads to an analysis of the "total cultural situation" and for which the psychological theory of the price economists is inadequate, and which must base

itself on a new social psychology which "reveals the vital unity of the individual and society" and for which institutions are more important than man's "set instincts and overt desires" because they provide man's "socially controlled conduct." An institutional theory at the hands of Mukerjee thus becomes a complex of psychology, anthropology, sociology, history, political science, ethics, jurisprudence and the cultural sciences generally.

It is clear, therefore, that this work follows in the methodological footsteps of the historical school and of the American institutionalists of the Veblen or Commons persuasion. More particularly, like Commons' treatment of institutional economics, this work represents an attempt to correlate economics with the other social studies, particularly political science, ethics and jurisprudence; but unlike Commons it approaches the latter-day problems from the point of view of modern biology and sociology. At the same time, and again like Commons' work, this book contains a running comment and criticism of the development of economic and social theories, in which the equilibrium theories of the classical school and their modern derivatives come in for considerable and not always favorable attention. From modern sociology he derives the regional concept, so that his institutional economics with its fundamental notion of achieving a balance of social forces and institutions in the setting of environment becomes a triadic balance of the individual, the institution and the region.

What can one say regarding this most recent attempt to develop an institutional theory of economics? Opinions will, no doubt, differ depending upon whether one conceives the proper subject matter of economics to be the hard core of price economics and the conditions under which exchanges take place, or whether one is willing to admit certain peripheral materials into the charmed circle. The former will, no doubt, point out that the earlier abstract and unrealistic assumptions of competitive individualism are being replaced by more realistic and more complex assumptions of imperfect competition and collectivist monopoly. It must be admitted that the economic man type of economic theorizing seems to have been uppermost in Mukerjee's mind when he wrote some of his most vehement strictures of the methods of procedure of that earlier day. The demolishing of an historical straw man in the polemical part of this work leaves untouched the more recent developments where writers of the Keynesian and other analytical schools seek to develop their theories on more realistic foundations and to place their conclusions—if not laws—in the service of governmental or social policy-making. Nevertheless, one must welcome this attempt of a dominantly sociological writer to come to grips with the wider reaches of social theory from which economics cannot indefinitely remain in isolation. There is a common ground of social philosophy which economists will do well to cultivate on their own, lest John Dewey's aphorism be applied to them that "Saints remain in their churches to pray while burly sinners rule the world."

While a stimulating and most welcome contribution in a field where the materials are somewhat diffuse and recondite, *Institutional Theory* could have been made a better book with some additional editing. The phrasing is often involved and wordy and serves to conceal rather than reveal an other-

wise clear meaning. Despite this imperfection of form, the book will occupy an important niche in the gradually expanding structure of institutional economics.

MARTIN G. GLAESER

University of Wisconsin

Social Causation. By R. M. MACIVER. (Boston: Ginn. 1942. Pp. x, 414. \$3.50.)

This book is primarily a study in methodology of the social sciences. It is concerned with some of the most fundamental problems of logical procedure as applied to social data. It does not attempt to make specific contributions to theory, sociological, economic, political or other. MacIver does find it necessary to concern himself with theory on the level of a broad, descriptive frame of reference, as logically he must, and there is a wealth of application of basic procedures to specific empirical problems, but the focus of attention is consistently methodological. This focus must be kept constantly in mind in any discussion of this widely read, and widely interpreted, book, else much confusion can arise concerning it, and its major contributions are lost from view.

A fundamental proposition, characterizing the book as a whole, is that causation is a primary mode of relationship in the world as man experiences it. It cannot be thought away without seriously impeding the development of scientific investigation in any field. A corollary proposition, not explicitly stated by MacIver, would be that sciences are themselves a mode of human experience, and thus should not waste energy in a futile attempt to dispense with one of the most basic elements in their structure. Hence, by way of justification of his proposition, MacIver begins his analysis by careful reflection on human experience itself. "For the present we are not concerned with the valid reference of the concept to the phenomenal world, but only with its universality for human experience" (p. 9). This approach does not imply an appeal to naïveté, but takes the position of naïve human experience as a point of departure for critical reflection, to draw and make explicit analytical distinctions which are implicit within such experience. (See, for example, "Modes of the Question Why," pp. 11-23.) In these respects MacIver's approach bears marked similarities to Phenomenology. Possibly this reviewer is attaching more importance to this facet of the book than did MacIver himself (who states in his Preface that the book may be read apart from the first two chapters), but there are frequent reiterations of this point of view throughout the text, and it may be suggested that this fundamental starting point might have been further clarified and enriched by drawing upon some of the contributions of Husserl, and particularly the contributions of Max Scheler and Alfred Schuetz as applied to the social sciences.

Another proposition, fundamental to the book as a whole, is that there is a significant difference between the data of the natural and the social sciences, and hence that the problem of social causation presents methodological questions peculiar to itself. As in all sciences, the search for causes follows the general method of difference. "Having first made our why specific, we

identify the situation or type of situation in which the phenomenon occurs, as against a comparable situation or type of situation from which it is absent, and engage ourselves to discover how the phenomenon is related to the differential organization of the situation containing it" (p. 251). When one attempts to apply the universal formula to the social sciences, special difficulties arise. The data are found within a dynamic historical process, such processes are not subject to the rigorous controls of the crucial experiment in the laboratory, and, above all, their dynamic quality derives from subjective or "socio-psychological" elements. In the main, MacIver's conception of this problem follows and amplifies the tradition of Max Weber, to whom numerous references are given. MacIver, like Weber, insists that "we have the advantage that some of the factors operative in social causation are *understandable as causes*, are validated as causal by our own experience. This provides us a frame of reference that the physical sciences cannot use" (pp. 263-264). But he also recognizes, with mature insight, the many problems which must be met and solved before this advantage is realized, and the major part of the book is devoted to a careful exploration of these problems.

Although this book is, as stated, a treatise in methodology, it is one which constantly points in the direction of theory, and the need for theory. "In treating certain subjects no small part of our effort should be devoted to the preliminary framing of the apt questions" (p. 123). He makes clear that the questions so formulated must, to yield scientifically significant results, form a logically interrelated body of concepts and propositions possessing compendancy. Indeed, the peculiarity of problems, referred to above, makes a constant and explicit attention to theory particularly necessary. MacIver adds to the growing realization in the social sciences that an extreme empiricism which rests content with "exact symbolic statements or measurements without seeking to find out what, if anything, they mean" (p. 155), will not do, and, essentially for the same reasons, an extreme operationalism will not do either (see especially pp. 157-158, fn. 24). An essential component of theory in the social sciences, and one directly related to the comparative method in the attribution of causes, is the construction of typologies (see especially pp. 160, 174, 210-211, 366-367). This procedure is, in many respects, the logical counterpart of the laboratory experiment.

Again, it is a treatise in methodology, but one which is oriented to the social sciences, and not a general philosophy of science. As such it must and does concern itself with specific problems and hence specific instruments of research which, in turn, lead us back to theory, both to specific substantive theories and to generalized analytical schemes. MacIver finds it necessary to develop the latter type of theory explicitly, on the level of a unified and consistent frame of reference for social data. This development follows the use of the means-ends-conditions schema (certain aspects of which have been highly developed in economic theory, and other aspects of which have undergone recent exploration in sociology, for example by Talcott Parsons). It yields a potentially useful formulation of an analytical element which he terms the "dynamic assessment," a crucial element in the world of values and of social *action*. This formulation, in turn, yields the basis for classifying types

of social data (*e.g.*, distributive, collective and conjunctural phenomena), and, in turn, types of causal investigation.

It is impossible to explore the many specific contributions in a review of a book of this type, and it is equally impossible to treat all points where negative criticism might be in order. It is a challenging book and, as such, there are many points in it with which one could quibble. However, two points of negative criticism may be useful in an attempt to clarify the nature of the book as a whole.

At certain points the author does not do justice to the methods or the use of economic theory, as judged by his own methodological criteria:

There need be no objection to the postulate that, *as a first approach* to the understanding of economic causation, we regard human beings as actuated by rational self-interest, defined in purely economic terms, so that they delicately weigh comparative utilities and comparative costs, so that they judiciously discount present satisfactions for future satisfactions, so that they always buy in the cheapest and sell in the dearest market, and so forth. . . . The objection is to the conclusion that this first step brings us anywhere near our goal (p. 168).

To be sure economic theory, like any theory, runs the risk of the "fallacy of misplaced concreteness" (Whitehead), *i.e.*, the tendency to attribute more applicability of the theory to concrete situations than is warranted. But economic theory may well take cognizance of the fact that the elements or factors it formulates do not operate in an institutional vacuum and yet have causal significance. Logically it would be as erroneous to deny this possibility as it would to deny that gravity has causal significance apart from a physical vacuum. MacIver himself places the economic system within the "technological order" in his classification of the "realm of conscious being," and the classification itself implies that, analytically (*not* concretely), there will be causal linkages unique to each category.

In speaking of Max Weber's thesis concerning the Protestant ethic he says:

But it might easily be claimed that the rise of the Protestant ethic itself, with its stern individualism, its "worldly asceticism," and its doctrine of stewardship, was the expression in the religious sphere of a pervasive change of social attitudes corresponding to and casually interdependent with a changing socio-economic order. Unless this claim can be refuted—and I do not see how a claim of this sort admits of definite refutation—we cannot establish the fundamental role in the process of social change attributed by Weber to the Protestant sects (p. 177).

He neglects to point out that Weber's theory was developed in a broader context, involving one of the most outstanding uses of the comparative method. Weber did not confine himself to one socio-economic-religious order and commit the fallacy of *post factum* allegation of causal significance to the religious element. Rather, he made an extensive study of three other orders and only on the basis of that evidence did he conclude that religious ideas, together with the religious interests they canalize, are among the causally significant determinants of the institutional structure, including the economic institu-

tions, of a society. In MacIver's terms one could say that the religious orientation in each case affects the dynamic assessment of a whole social order. Methodologically, at least, Weber's study could be taken as well in line with the standards MacIver proposes.

This treatment of the problem of causality has certain results which are not strictly of logical pertinence to methodology but which, given the present state of affairs in the social sciences and given the realities of teaching, are of profound significance. If the reader can bring himself in rapport with MacIver, and let himself go from some of the strictures of extreme positivism, he will certainly derive a sense of relief from the almost neurotic phobia the concept of causation has tended to create in the social sciences. He will find himself using it more freely, yet critically. He will be more nearly in rapport with his students, who have not developed the phobia, and will be able to guide them in ways which make human, as well as scientific, sense.

RICHARD HAYS WILLIAMS

The University of Buffalo

The Spirit of Russian Economics. By JOHN F. NORMANO. (New York: John Day. 1945. Pp. xiv, 170. \$2.00.)

There is plenty of spirit and a modicum of economics in this somewhat pretentious little book. Essentially it re-tells the story of the Russian intelligentsia, its philosophical beliefs and its historical and social ideas. The author tries to separate the French, English, and German influences. Each of them receives a special chapter. Yet time and again the trichotomy breaks down. This is, for instance, the case with Radishchev, the great social critic under Catherine II, and even more strikingly, with the *Decembrists*, who are discussed in the chapter on English influence although the author is also forced to treat here the ascendancy over them of the ideas of the French revolution. Moreover, the *Decembrists* re-appear in the chapter on German influence, since it was from German universities that some of them received their ideas of economic and political liberalism. The intellectual goods shipped by any single nation are seldom homogeneous and the character of the shipments changes from period to period. The author tends to simplify these relationships. After having indicated the growing predominance of German thought in Russia from the middle of the 19th century onward, he permits his interpretation to culminate in the bizarre description of the Russian revolution "as a reaction against, and prevention of, continued German hegemony in Russian economic life and thought." In making this unguarded statement the author conveniently forgets certain things of which he is perfectly aware elsewhere, such as the large influx of capital from England, France, and Belgium in the years preceding World War I, as well as the fact that, after all, German Marxism is not entirely unrelated to the ideology of Bolshevism.

The author is on somewhat firmer ground when he regards Bolshevism as a synthesis of the conflicting currents which divided the Russian intelligentsia in the past. In varying guise throughout the decades it was the struggle between those who wanted Russia to follow the West, or thought this development inevitable, and those who envisaged for Russia an inde-

pendent social evolution. The author's discussion of the elements of this synthesis, together with his insistence on historical continuity, in the present Russian system makes worth-while reading, but it contains no attempt at a critical distribution of emphasis and gives little more than a collection of interesting points of view.

But what about Russian *economics* itself? At times the author reveals that he conceives of his book as a history of economic thought in Russia. This is misleading. The book deals with the general intellectual climate in which certain economic creeds developed. Economic theories are carefully avoided. Thus the reader may learn that Tugan-Baranovski's "real strength as an economist was in his investigations of England's industrial crises," but not a single word is devoted to his contribution to the theory of business cycles. The influence of the Austrian school of economics on Russian scholars is relegated to a dependent clause, and no mention is made of Chaianov and his school of agricultural economics, which applied the marginal utility analysis to investigations of peasant economy. The author does list, particularly in the earlier sections of the book, a fair number of Russian economists and some of their works. This bibliographical information may be useful to those who want to obtain a general orientation in the field. Unfortunately the titles are given in translation only without transliteration of the Russian original. This may make utilization of the bibliographical data more difficult.

The book is written in a lively style and reads well. It is stimulating and will cause no damage as long as the reader remains on his guard against the author's predilection for sweeping generalizations.

ALEXANDER GERSCHENKRON

Washington, D.C.

Antoine-Élisée Cherbuliez et la Propriété Privée (1797-1869). By WILLIAM E. RAPPARD. (Zurich: Editions Polygraphiques S. A. 1941. Pp. xi, 209. Fr. 10.)

The Genevese Cherbuliez, to whose life and work this new study of Professor Rappard, the well-known Swiss scholar, is devoted, occupies an honorable place among nineteenth century economists. He acquired considerable reputation not only by his economic publications but also by his many historical and political writings. Somewhat forgotten today, he enjoyed the high esteem of his contemporaries. John Elliot Cairnes, to cite but one example, considered him "one of the most eminent of recent contributors to economic speculation on the Continent,"¹ and calls his *Précis de la Science Économique* (Paris, 1862, 2 vols.) "an admirable treatise."² Compared with Jean-Baptiste Say, he is a "much abler thinker and clearer expositor."³

Professor of public law and political economy at the University of Geneva, Cherbuliez took an active part in the political life of his canton. In 1831 he was elected to the Representative Council, of which he was a member for ten

¹ Cairnes, *Essays in Political Economy* (London, 1873), p. 296.

² *Ibid.*, p. 194.

³ Cairnes, *The Character and Logical Method of Political Economy* (second edition, London, 1875), p. 12.

years. In the Genevese Constitutional Assembly (1841-42) he was one of the foremost conservatives. From 1842 to 1846 he was a member of the Grand Council. The Genevese revolution of 1846, however, marked the end of his political career. After the seizure of power by the "Radicals" he resigned his professorship at the University of Geneva and left his native city forever (1847). For several years he lived in France, without finding a suitable post. After his return to Switzerland he spent three years at Lausanne and then settled definitely in Zurich, where he held a chair of political economy and statistics at the *Polytechnicum* (1855-69).

As Professor Rappard shows, there is no exaggeration in saying that the problem of private property vexed Cherbuliez throughout his agitated life. From his earliest publication (1826), he criticized, first in a somewhat veiled manner, the institution of private property. His irritation against it went on increasing, to reach a climax in 1840. In that year he published a small volume entitled *Riche ou Pauvre*, which caused a small scandal in Genevese conservative circles. As a professor at the university of that city, he was bold enough to attack violently the institution of private property and the capitalist system. He did not shrink from asserting that the whole social edifice reared on this institution is rotten to the core and should be destroyed. He was particularly hard on the landowners and advocated nationalization of the land. None the less, only a few years later he turned from a critic and opponent of private property into one of its most stubborn defenders. In fact, by 1848 he appeared as a convinced champion of that institution.

How is this *volte-face* to be explained? Professor Rappard is not satisfied with the summary explanation that this change of view was occasioned by Cherbuliez's fears produced by the two Genevese revolutions of 1841 and 1846 and by the French February Revolution of 1848. Professor Rappard tries, most successfully, to explain Cherbuliez's changing opinions on the basis of that scholar's biography. To understand the views of a savant on matters economic and social, it will not do, according to Professor Rappard, to follow faithfully his statements at various points of his career; it is necessary also to look for the hidden sources, deep and diverse, from which they flow and by which they are fed continually.

Professor Rappard's study is divided into two parts of equal length. In the first he offers a biographical sketch of his compatriot Cherbuliez. He outlines first the career of the liberal publicist (1826-41) in the course of which he vehemently criticized capitalist society. He then examines his counter-revolutionary period (1841-52) during which he distinguished himself by a bitter warfare against democracy and socialism. He finally describes the last period of Cherbuliez's life (1852-69), when the "conservative scholar" (as Professor Rappard calls him) devoted himself with greater calm to the defense of the established order.

The second part of the book is given over to the study of the ideas of the Genevese economist on private property. After an examination of his "preliminary skirmishes" against that institution, Professor Rappard analyzes his "frontal attack" against it as found in *Riche ou Pauvre*. Finally he deals with Cherbuliez, the defender of private property.

Such is the frame of Professor Rappard's work. By comparing the first and second parts of his book, the biographical essay and the critical sketch, we obtain a satisfactory explanation of Cherbuliez's social philosophy. We see how Cherbuliez, whose parents were of modest origin and moderate means, suffered from what would be called today a feeling of inferiority. By his exquisite tastes, the high quality of his education, by his talents and culture, he was at least the equal of the Genevese patricians; but by his social position, that is, by birth and fortune, he was their inferior. It is thus not surprising that he rose in revolt against this state of things. In spite of his quite conservative ideas in the realm of politics, he attacked the institution of private property. This attitude led him, of course, into a rather paradoxical position; for while he vigorously defended the political privileges of the ruling class, he at the same time undermined the economic foundations of its power.

It is the recognition of this paradox by Cherbuliez himself which led to his above-mentioned change of opinion. This realization was doubtless hastened by the growth of the popular movements which disgusted him highly. Let us note, however, that it was not a question of intellectual venality. Cherbuliez's biography proves beyond the shadow of a doubt that it was in the very period when his financial embarrassments were at their worst that he attacked socialism most bitterly and defended private property most ardently. It was in fact at that very time that he published a brochure with the significant title *Le socialisme s'est la barbarie* (1848).

From want of space we cannot follow here, even in abridged form, Cherbuliez's biography and social philosophy. Suffice it to say that Professor Rappard has accomplished very well his task; he has indeed succeeded in explaining his author's doctrine on the basis of the biographical data. His book is doubtless an important contribution to the history of economic and social doctrines.

Professor Rappard's study is very well documented. Not content with utilizing the printed documents, he frequently goes back to the unpublished sources, which he knows thoroughly and interprets luminously. He often quotes from documents and manuscripts preserved in the cantonal archives of Geneva and Lausanne.

The division of Professor Rappard's study into books and chapters is quite symmetric and not devoid of elegance. In point of interest his style does not lag behind the subject. It is also well to notice that such perfect harmony between author and subject is not frequently found. For Professor Rappard knows his subject not only through his research but, as it were, also from personal experience. He lives in Cherbuliez's native city and teaches at the same University of Geneva where in former days the author of *Riche ou Pauvre* held a chair. Like his academic ancestor, he, too, is an economist, historian, and statesman. These affinities add to the captivating interest of the book.

EDMUND SILBERNER

Washington, D.C.

Economic History

An Economic History of the Indiana Oolitic Limestone Industry. By JOSEPH A. BATCHELOR. Bus. stud. no. 27. (Bloomington: School of Bus., Indiana Univ. 1944. Pp. xii, 382.)

This monograph presents a detailed and informative economic history of the Indiana limestone industry from its beginnings in the 1820's to the outbreak of the present war. It is based upon an exhaustive study of published materials pertaining to all economic aspects of the industry and extensive interviews with those who have been associated with the industry. Although this study represents an interesting case for students of the theory of price, labor or business practices, it is factual and historical in its nature and not concerned particularly with the testing of economic theory.

Dr. Batchelor has divided his study into five periods: the pioneer era prior to 1870, the period 1871-1896 when the quarry industry came of age, the period 1897-1918 during which the quarries and cut stone mills were integrated, the period of boom, merger and overcapacity from 1919 to 1933, and the period of frustration from 1934 to 1941. For each period he discusses such problems as the trends in the volume of public and private construction, trends in the use of limestone and competitive construction materials, changes in the capacity of the Indiana limestone industry and in the relations between the quarries and the cut stone mills, promotional activities to develop uses for the Indiana product, technological developments in the industry, the influence of railway facilities and rates on the industry, the development of labor organizations, trends in wage rates and employment, financial organization of the industry, activities of trade associations, and the industry's price policies and profits.

While the industry does not compare in size or in glamour with such industries as aluminum, steel or bituminous coal, it is one which should be of considerable interest to many students of economics and business policy. It is an extractive industry which is highly concentrated in a small area. Its product is used in the construction industry, which has a place of considerable importance in current economic thinking and public policy. There has been a constant struggle within the industry between forces making for the diffusion of the cutting mills to the consuming centers and those making for concentration at the quarries, a struggle which has had interesting repercussions on all aspects of the industry. Although there have always been a considerable number of firms in the industry, in recent decades a few firms have been responsible for a substantial part of the output at both the quarrying and cutting stages. However, the power of price leadership often inherent in such a situation has been limited by the ease of access of new firms and the development of various rival building materials. Like many industries related to the construction industry, the Indiana limestone industry has had a long history of controversy over wages, the use of labor-saving devices, union jurisdiction, and related problems. This controversy has been accentuated by the rivalries within the ranks of labor and employers alike resulting from

the struggle between stone-cutters located at the quarries and those located at the consuming centers. In the field of finance the industry illustrates the dangers of the use of mortgage bonds by an extractive industry highly sensitive to fluctuations in business activity. Attempts at joint action have been recurrent for the purpose of developing markets, standardizing product classifications and other trade practices, and for controlling price competition.

A limitation of the study is the lack of detailed information concerning costs, prices and profits of individual firms. This could be rectified only if the concerns in the industry would make their business records available. The significance of this limitation is illustrated at one of the few points where the author ventures to comment on the extent to which the experience of the industry verifies economic theory. Discussing the experience in the 1920's, he notes that before 1926 a period of price leadership existed in which firms acted in price matters with due consideration for the reactions of competitors. However, after 1926, which marked the formation of a merger replacing the price leaders, price cutting became the order of the day. Although there were many factors which might account for this, the author evidently imputes this change in part to the high fixed charges assumed by the merger. In the early period since "the price leaders were in good financial position and not overburdened by fixed charges, the smaller firms hesitated before cutting their prices very far. After 1926 . . . the smaller firms were not deterred by fear of a price war with the merger that had replaced the former price leaders" (p. 296). The significance for price policy of fixed charges as against the implicit overhead costs on equity investment is a subject on which there is not as yet a consensus. There are those who would argue that fixed charges and overhead on equity investment are indistinguishable so far as price policy is concerned. Likewise, an *a priori* argument might be made that heavy fixed charges in an extractive industry by increasing the firm's liquidity preference may make it more prone to start a price war when excess capacity develops. Only by access to the records of the individual firms and a study of the process of decision-making will such issues be settled. It is to be hoped that more business firms will be induced to cooperate with the students of business and economic history to make their records available.

J. P. MILLER

Washington, D.C.

National Economies

Chile, An Economy in Transition. By P. T. ELLSWORTH. (New York: Macmillan, 1945. Pp. xi, 183. \$3.00.)

Professor Ellsworth's little book on Chile constitutes a most welcome addition to our unencumbered library shelves of basic economic studies on Latin America. It is concise, systematic and lucidly written. Professor Ellsworth, moreover, has the all too rare courage of "sticking his neck out." His approach is critical as well as descriptive. He states frankly his opinions on past policies, ventures positive suggestions for future action.

The study covers the period 1930-1942. The first two chapters deal very broadly with the depression and the subsequent recovery. The four middle chapters analyze in some detail monetary developments and governmental intervention in the exchange market and in the domestic economy. The last chapter offers a concrete program for the future development of the Chilean economy.

Such a book cannot fail to delight the casual reader and to antagonize, at times, those who feel sufficiently familiar with the subject-matter to have reached opinions of their own on a suitable medication for the Chilean economy. The Chileans, especially, will be tempted to accuse the author of a lack of sympathetic understanding of the overwhelming difficulties they faced and of policies adopted under the pressure of circumstances rather than deliberately chosen on the basis of theoretical analysis. This is especially true of Professor Ellsworth's criticism of exchange control and of his optimism as to the alternative policy of currency devaluation.

The first chapter points very eloquently to the basic fact that "the great depression of the early 1930's was from Chile's point of view entirely an imported product." Exports, which probably absorbed 30 to 40 per cent of national production in the twenties, dropped from 2,293 to 282 million gold pesos between 1929 and 1932, a loss of nearly 88 per cent in three years. Foreign loans, which had reached a total of 1,125 million gold pesos in 1929-1930, fell to 76 millions in the 1931-1932 period and disappeared entirely in 1933.

A rigid deflationary policy—government expenditures were cut by about 40 per cent from 1929 to 1932 and the means of payment contracted by 38 per cent between the end of 1929 and the middle of 1931—was insufficient to arrest the drain in the balance of payments, but further aggravated the internal dislocation of the economy. The Central Bank lost more than half of its gold reserves by the middle of 1931. Unemployment rose to unprecedented figures and led to a state of chronic revolution and of successive and violent changes in government which lasted from July 1931 to October 1932.

In the middle of 1931, orthodoxy was thrown to the wind, the foreign debt went into default and exchange control isolated the country from external deflationary pressures. Interest rates were gradually reduced, central banking loans increased approximately fourfold in less than a year and a half, with a corresponding increase of about 100 per cent in monetary circulation. This, coupled with fiscal exemptions designed to encourage new construction, stiff increases in tariffs, currency devaluation and exchange control, the creation of various development banks and improved world conditions, finally succeeded in promoting internal recovery. Unemployment practically disappeared by the end of 1935 and the index of industrial production about doubled during the period.

Recovery, however, was accompanied by inflationary developments which hit large groups of the population very hard. The index of living costs in Santiago rose month by month, the total increase approximating 80 per cent between the end of 1931 and the end of 1938. Social discontent expressed itself at the polls and in January 1939, a new government pledged to far-reaching

social and economic reforms, came into office. The carrying out of this program further enhanced the inflationary process, central banking loans increasing from 1,017 million pesos in January 1939 to 1,951 millions at the end of 1942, commercial bank loans from 2,118 to 3,190 millions, total means of payment from 2,402 to 4,701 millions¹ and the cost of living index from 189 to 335.

A large part of the credit expansion originated in loans to development institutes, a program strongly supported by influential groups favoring industrialization and economic diversification. The potential inflationary impact of excessive central bank financing of long-run developmental programs is often recognized among the government's intelligentsia, but accepted as quasi-inevitable, in view of the insufficient supply of saving-capital, if plans are to be actively pushed forward for the economic development of the country. The catastrophic consequences of excessive dependence on international transactions in the years 1930-1932 are pointed out as justifying certain sacrifices in order to decrease the vulnerability of the Chilean economy to external fluctuations.

Professor Ellsworth is more willing to lay his plans for Chile on the assumption that enduring peace and international action toward liberalization of trade will permit Chile to "aim at the maximum possible reliance upon international specialization consistent with the goal of reasonable stability" (p. 134). It might be doubted, however, whether the mere liberalization of trade would be sufficient to eliminate violent cyclical fluctuations in Chile's exports. Many Chileans would probably wish to take a safer, if less optimistic, course and emphasize "reasonable stability" rather than "reliance upon international specialization."

In any case, Professor Ellsworth's own analysis paints a very dark picture of future prospects for Chilean exports of copper and nitrate which, in the thirties, accounted for more than 70 per cent of the total value of exports. In the last pages of his book, he emphasizes in detailed and concrete terms the desirability of developing or expanding power resources, steel production, copper manufactures, chemical industries, lumber production, fisheries, canning and dehydration of food, agricultural production, road building, housing facilities and public health and educational work. This is a vast and ambitious program, whose active prosecution would be economically, politically and socially difficult within the framework of orthodox monetary and commercial policy and uncontrolled exchange markets.

The book reveals, indeed, a sharp contrast, verging on contradiction, between the concrete discussion of developmental programs and of recovery policies on the one hand and, on the other, the more theoretical positions which express Professor Ellsworth's philosophy as to exchange control and tariff policies. Thus, in Chapters II and III, "the various measures which tended to isolate Chile from the world economy" are mentioned among "the chief reasons which serve to explain the strikingly rapid and lasting recovery in Chile" (p. 27); and "exchange control and default on the foreign debt

¹By the way, Professor Ellsworth produces different series of means of payment under the same caption in the text and in the appendix.

service together brought to a halt the operation of the balance of payments mechanism, which was draining the Central Bank's gold reserves and imposing deflation on the economy" (p. 35). On the other hand, we find in Chapter IV that "although the advantages of exchange control as it has operated in Chile are either uncertain or of secondary importance, the disadvantages are unquestionable and considerable" (p. 71) and, in Chapters V and VII, strong implications are made that the growth of tariff-protected industries results in a lowering of the standard of living and may well aggravate, rather than remedy, deficits in the balance of payments.²

Professor Ellsworth's predilection seems to go toward currency depreciation rather than tariff protection or exchange control. While less cumbersome and less dangerous from the point of view of unequal incidence on the channels of trade, currency depreciation is also a rather blunt and crude instrument and one which, in the case of Chile, may be relatively ineffectual owing to the structure of the copper and nitrate markets. In arguing against exchange control and in favor of currency depreciation, Professor Ellsworth sees "some evidence . . . that at a rate between 30 and 35 pesos to the dollar Chile's currency might have formed its 'natural' level" (p. 66). His arguments are arresting but, to my mind, far from conclusive. Their force is very much weakened by other considerations, some of which are mentioned in the text itself. Most of all, however, I would question the concept of any one "natural" level of exchange in a period in which monetary inflation continued relatively unchecked. Means of payment rose in 1932 to 165 per cent of their December 1931 level. They doubled in the five years 1933-1937 and doubled again in the next five-year period. It is hard to believe that the Chilean currency could have found, under such conditions, any "natural" level on a free exchange market, especially within the rather narrow range suggested by Professor Ellsworth.

Thus, while I agree fully with Professor Ellsworth that "the disadvantages of exchange control as it has operated in Chile . . . are unquestionable and considerable" (p. 71), I doubt whether currency depreciation could have offered a full and workable alternative. Some form of exchange control—although not necessarily the rigid, arbitrary and cumbersome procedures adopted in Chile—was probably unavoidable during the process of adaptation of the Chilean economy to a new and more stable basis. Even after this adaptation is effected, an economy as vulnerable to external impacts as the Chilean one will undoubtedly remain, may still find it desirable to resort to temporary and flexible controls in times of stress in order to protect itself against undue disruptions of a purely cyclical or accidental nature. Such controls need not necessarily be more disturbing from an international point of view than alternative measures of protection, such as currency devaluation, etc. They should, however, be limited through international agreements, both

² The latter conclusion is based on the curious argument that other nations would be unable to buy from Chile if Chile does not provide them with pesos by importing from them. Chile, however, can supply pesos to foreigners, not only by importing, but also by accumulating gold or foreign exchange reserves and, in any case, she would not need exchange if she did neither import nor make any other payments abroad.

as to methods and duration, to what is nationally justified and internationally acceptable.

Professor Ellsworth's book stops in 1942. Since then wartime surpluses in the balance of payments have aggravated further the inflationary problem, total means of payments rising at the end of 1944 to 253 per cent, cost of living to 211 per cent and commercial bank loans to 185 per cent of their December 1939 levels. On the other hand, the central bank has maintained its loans at a relatively stable level and made somewhat ineffectual attempts at sterilizing purchasing power through sales of gold or certificates to the public. The Development Corporation has also developed more comprehensive planning programs which may answer in part the objections raised by Professor Ellsworth (Chapter V) against the excessive dispersion of its activities.

In summary, I should say that Professor Ellsworth has presented an excellent analysis of Chile's economic problems and recent evolution. He is at his best in his descriptive chapters. His discussion of policy matters, on the other hand, seems to me to denote a lack of sympathetic understanding of practical problems and possibilities and to reflect academic preconceptions rather than inductive conclusions from his concrete study of Chilean experience. But then, economists rarely agree on policies and I sincerely hope that many people will read this excellent and stimulating little study and draw their own conclusions with regard to the fascinating and provocative problems of an "economy in transition."

ROBERT TRIFFIN

Washington, D.C.

Latin America in the Future World. By GEORGE SOULE, DAVID EFRON and NORMAN T. NESS. (New York: Farrar and Rinehart. 1945. Pp. xiii, 372. \$3.50; college ed., \$2.50.)

This work, published under the auspices of the National Planning Association, is a deliberate attempt to emphasize the least favorable aspects of Latin America's social and economic life. It is hoped that by this approach readers will obtain a clearer perception of the need for action to remedy many of the area's man-made weaknesses. Fundamentally, the authors attempt to show how our neighbors to the south can achieve "freedom from want." In displaying the character of the want, the book reveals many interesting factors which are brought together for the first time in one volume. This is especially true of the descriptive material bearing upon the non-economic subjects of nutrition, housing, health, education and the social classes. Fewer novel features are to be found in the strictly economic sections of the volume. We are told that the manuscript was submitted to representatives of each of the twenty Latin American republics for "advice and correction."

The dominant emphasis is on the need for substantial reform in agriculture and industry. First and foremost among the requirements is that of reforming land use. It is contended that a significant part of the available land is used in a feudal or semi-feudal manner. Too much land on the average is held idle in order that owners may maximize its "use mobility," that is, in

order that owners will be a position to engage on short notice in the production of goods yielding quick profits when sold as exports. The book recommends that exports be de-emphasized, specifically, that the traditional rôle of exports be subordinated to a planned diversification of agriculture to serve the domestic market. The dictates of "balanced" economy also require a program of rapid industrialization. The virtues of a balanced national economy are stressed again and again in the early part of the volume, but it is not until the end of the book, by which time the uncritical reader already has become "sold" on the primacy of balanced economy to meet internal needs, that a few statements are made about the wisdom of avoiding the introduction of inefficient enterprises.

One of the characteristics of the book is its pronounced anti-export bias. In its most sophisticated version, the argument runs in terms of wasteful land tenure and the rôle of exports in setting the tempo of domestic economic activity. The argument has an apparent cogency because it is intermingled with quite sensible statements regarding the foreign-trade multiplier. But the wastefulness of land tenure is often exaggerated (as will be shown below), and the authors gloss over the vastly superior productivity of export production in most of the Latin American economies. Is not the average yearly productivity, considering boom and poor years as a whole, sufficiently greater than it would be on anything approaching a domestic self-sufficiency basis to more than compensate for the adverse effects of fluctuations *per se*? If so, appropriate social security measures would permit of the enjoyment of a higher average level of well-being than would be possible under arrangements consistent with the position of this book. Moreover, since export fluctuations in these countries derive mainly from independent fluctuations in the imports of the major industrial nations, what is the assurance that foreign-induced swings in the demand for Latin America's exports may not continue to have serious repercussions on employment and national income even in a more self-sustaining economy? The reviewer suspects that, apart from the beneficial results of foreign investment activity, the authors minimize the adverse effects of an increased multiplier which will result from a decline in the propensity to import, and that in addition many of the measures proposed are not consistent with the maintenance of over-all productivity.

The book also suffers in many instances from reliance upon poorly reasoned argument and flimsy evidence. For example, monoculture and land monopoly in Puerto Rico are held mainly responsible for the plight of the people on that island, the supporting evidence being the decline in the per capita utilization of land for food crops from .22 acres in 1899 to .16 acres today. Nothing is said about the trend of per capita exports and federal relief in money and real terms, nor is there any analysis of the Malthusian problem or of the alternatives to sugar and tobacco. It is interesting to note that the same historical trend in land use in England, which the authors conveniently overlook, is regularly cited in the literature as one of the factors which made possible large gains in material welfare. The authors also make use of incorrect statements to support other views with respect to land use. Land "monopolists" are said to avoid contracting with tenants to assure that owners may be free to adjust

production to shifts of export demand. In Argentina, for example, owners are alleged to be guilty of a wartime policy of recklessly replacing grain tenants with a smaller number of cattle-raising peons. We are told that quick profits can be made from livestock, since cattle can "wait on the hoof for an eventual resumption of international trade" (p. 68). Nothing could be farther from the truth. A four-year-old steer, for instance, is a product that is completely different from, and far less valuable than, an animal just half that age. The facts of the Argentine case are that animals have not been "waiting on the hoof." Argentine meat has moved into export channels—to Britain and Allied troops—in steadily increasing volume during the war, in part at the expense of declining domestic consumption. Finally, the illustration emphasizes the inconsistency of the argument, for the exodus from Argentine agriculture during the war has helped to achieve a goal which the authors would like to see attained, namely, the diversification of the economy. There has been a large net movement into Argentine industry in the past several years.

Two different types of excesses which are common to the book may be mentioned. There are a number of misleading statements with respect to comparative expenditures on foods and other essentials of livelihood. Mexican Indians in the state of Hidalgo, for instance, are alleged to spend 0.7 Mexican cents or only one fifth of a cent (erroneously equated to one cent) per day on food (p. 25). Although the reviewer encountered dozens of such statements, there is not a single instance in which it is clear whether the figure represents a small or large percentage of the value of food consumed. At the extreme of family self-sufficiency, it would not be surprising to find well-nourished rural people making no purchases of food. In the second case, involving Venezuela, we are told that livestock-producing peons in one part of the country are seldom given milk, although this product "costs almost nothing in that region" (p. 21). The distribution of wealth is admittedly bad in Venezuela, but is it fair to accuse the landowners in this case? What about individual tastes? Why do not the people avail themselves of milk when, as is alleged in this instance, it can be obtained virtually as a free good?

The foregoing critical comments are not intended to indicate that we can be complacent about poverty in Latin America. It is a serious problem, and numerous economic and social reforms are needed. As far as its major emphasis is concerned, this book serves a useful purpose; but the reader should be wary of the many inaccuracies and exaggerations which it contains.

VIRGIL SALERA

Washington, D.C.

The Economic Development of French Indo-China. By CHARLES ROBEQUAIN. Translated by ISABEL A. WARD. Supplement by JOHN R. ANDRUS and KATRINE R. C. GREENE. Issued under the auspices of the International Secretariat, Institute of Pacific Relations. (New York: Oxford Univ. Press. 1944. Pp. x, 400. \$4.00.)

Modern Korea. By ANDREW J. GRAJDANZEV. (New York: Internat. Secretariat, Inst. of Pacific Rel.; distributed by John Day. Pp. x, 330. \$4.00.)

These two books, both sponsored by the Institute of Pacific Relations,

provide an interesting study in contrasts. Both authors attempt to be objective in their appraisals and yet Robequain sees French imperialism as something essentially benevolent while Grajdanzev sees Japanese imperialism as something completely evil. To obtain a balanced appraisal of the effects of imperial rule upon these two countries, Robequain's sympathy toward French rule and Grajdanzev's antagonism toward Japanese rule have to be discounted because the point of view of an author inevitably colors his interpretation of facts. A few quotations will illustrate the problems of evaluation which the reader will have to face.

On page 31 Robequain states:

This impermanent handful of Europeans, constantly replenished by newcomers from France, played the decisive role in the transformation of Indo-China. It is easy to stress the eccentricities and frailties of the European exile in the tropics, to picture the colonial as being without physical energy and moral stamina or as a handsome brute who is ruthless to the native. It cannot be sufficiently emphasized just how much these colorful one-sided descriptions distort the truth. The real situation is much more encouraging. Violent treatment of the natives has become the exception and is severely repressed.

And yet on page 36 these words appear:

A Chinese coolie is seldom found on European plantations in Indo-China; Annamite laborers from the deltas of the north are generally preferred because they are cheaper and more manageable.

In reference to the fact that the Chinese have established a monopoly of the rice trade, river navigation, and money lending, Robequain reports:

These Chinese are criticized, and often with good reason, for their unscrupulousness and their harsh treatment of the natives; their practice of taking advantage of the shortcomings and poverty of the peasants is quite rightly termed hateful, as is their shrewdness in skillfully evading the laws and regulations imposed on them in avoiding all official control, and in working under the cover of unstable and irresponsible associations. They are denounced as parasites who do not create wealth but fatten on the riches created by Indo-Chinese labor, benefiting the while from the security established by Europeans and the roads and railways which European technical skill and capital have built (pp. 39 and 40).

This criticism, he admits, "should be somewhat tempered"!

In reference to the growth of large estates in Tonkin, and the resulting decline in small owners and the increase in tenants, these excuses are offered.

It should be added that speculation in land, inadvertently encouraged by the French administration, often thanks to the complicity of the mandarins and village head men, on occasion has also involved communal lands. Thus the existence of small owners and tenant farmers is rendered even more precarious; in Tonkin communal lands now represent only about one-fifth of the cultivated area (p. 83).

In the western provinces, on the other hand, new lands were not brought into production by small-scale native colonists. To be sure, this is regrettable,

but the French administration has some justifications; the construction of canals was very expensive and it seemed logical to sell the land cheaply to the buyer best able to develop it quickly. Only rich natives and those able to borrow capital applied (p. 84).

In conclusion Robequain states:

As a result of French activity the average standard of living of the Indo-Chinese has risen in fifty years (p. 334).

The trouble is that the colony's human resources have grown as fast as have the opportunities offered to them (p. 334).

This is a difficult problem to solve and one of the white man's greatest burdens. Will he not be worn out in his double attempt to increase the native's life span and feed him better? (P. 345.)

While generally favorable to the French administration, the book does contain some mild criticisms and points out the need for closer coöperative projects with native communities, better education, and much less emphasis on tying the development of Indo-China to French needs and French markets. The difficulties of administration and development due to the mountainous terrain and diversity of the population are clearly brought out.

In their excellent summary of events since 1939 (when Robequain's book was first published in French) to 1943, John R. Andrus and Katrine R. C. Greene outline the very effective methods used by the Japanese to exploit the people of Indo-China to obtain the exports they needed without any real payment. At the same time they recognize that some benefits may accrue in the future and they conclude their remarks in this fashion:

The Japanese inventoried the commercial and natural resources of the country in 1940 and 1941 and have since poured men, money and ideas into the wake of their armies. While their motives were entirely selfish, and they only incidentally aimed at improving Indo-China's economy, some of the developments which they sponsored may prove of lasting advantage.

At least part of the result of the Japanese occupation, however deplorable the purpose and methods, has been broadening of the industrial picture and a breakdown of some of its monopolistic characteristics. Thus while many, if not most, of the Japanese enterprises and policies will be erased and forgotten as soon as possible after the present conquerors of Indo-China are driven out, one result of the war may be a more well-rounded and better integrated economy, fitting more efficiently into the trade and economic development of the western Pacific (p. 388).

In discussing Korea under Japanese rule Grajdanzhev takes to task, in no uncertain terms, all those who have said anything favorable about the results of Japanese control of this country. Railways and roads were built purely for military purposes; agriculture was improved to enable the Japanese to eat better; health and educational developments are condemned because they are not as advanced as in Japan; and industry has been developed only to benefit the Japanese. In his analysis of "afforestation" achievements under Japanese rule he classifies all cutting as "deforestation" or "destruction," and fails to point out that the northern forests were inaccessible until roads

and railways were built. He also omits any reference to the strict control over cutting, the replanting provisions in present laws, and the use of selective cutting as a means of avoiding "deforestation" or "destruction" of the areas where timber is being felled. Again in relationship to the expansion of fishing he states:

. . . at least five-eighths of the fish and other sea-products are exported; this shows that the increase in quantity of fish caught brought very little benefit to the Korean population (p. 129).

On the next page he shows that the number of Koreans engaged in fishing doubled from 1915 to 1932 and, on page 226, that imports increased over 5 times between 1915 and 1930.

In discussing imports from Japan he shows that they were largely capital goods or luxuries, that these did little to improve the lot of the masses of the Korean people and that invisible items reduced the net import position of Korea. This reflects a misunderstanding of the benefits of trade and of indebtedness, for even if imports of capital goods do not immediately raise the level of consumption, they may do so in the future. Korea has had a large excess of imports over exports almost every year from 1910 on and this growing indebtedness of the Korean economy to the Japanese was one of the means by which Japanese corporations were enabled to expand industries and take over the ownership of Korean resources. Low wages and prices of export products with monopoly prices for many imports and manufactured products resulted in a rapid accumulation of capital in the hands of Japanese corporations at the expense of Korean farmers and laborers. Surely the important point that should be emphasized is that this justifies a transfer of the ownership of Japanese capital to Korea without burdening the new government with a large debt to the Japanese. If this is done, the deprivations of the past and the resulting industrial growth will be of great value to this and future generations of Koreans.

In contrast to Robequain, Grajdanzev cites figures to show that the per capita rice consumption has dropped 40 per cent and the consumption of all cereals and beans has fallen about 15 per cent from 1915 to 1933 (p. 118). At the same time he neglects to mention in this connection that the population increased about 40 to 50 per cent over the same period and that many more people had to be fed. The production of other products increased and the economy moved from a self-contained barter subsistence basis to a commercial economy with much greater dependence on money income and more diversified consumption. There appears to be insufficient data to prove conclusively that the general level of living has increased or declined over this period because standards have changed. National income, trade, industrial production and agricultural production have increased rapidly, but farmers and laborers appear to have received little or no benefit from these changes and, where the farmers have lost their lands, their position has been made worse.

On page 213, Grajdanzev makes this statement:

The poverty of the Korean population has already been described. Now

we see that from this population the Government received 122 million yen in time of peace and 229 in time of war.

From the table on the next page it appears that over this same period income taxes increased from 9 to 34 million, war profit taxes increased from 9 to 17 million, taxes on interest and capital increased from $\frac{1}{2}$ to $3\frac{1}{2}$ million, and the business tax increased from 2 to 6 millions. Not only had the absolute amount of these progressive taxes increased, but the percentage of total taxes and monopoly revenues received from these sources increased from 11 per cent in 1936 to 26 per cent in 1940. The statement "We must therefore conclude that those who drew large incomes were treated with greater consideration than the poorer sections of the population" (p. 215), should also point out that the tax system, while by no means perfect, had become much more progressive.

In discussing the problems of Korean independence Grajdanzev makes these two statements on the same page (277). Arguing that the Koreans are now better equipped for self-government, he says:

Hundreds of thousands of Koreans are now at school; hundreds of thousands are in factories and mines; tens and thousands have visited foreign countries as workers and some thousands as students. . . .

A few lines below, in reference to the suggestion that Japan be given a mandate over Korea, he says:

Thus, the power which has deprived Korea of any possibility of self-government, the power which has ruthlessly exploited Korea for its own imperialistic aims; the power which has presented Korea with the police force as the only standard of authority. . . .

How the ability of the Koreans for self-government, which "could not have appeared before 1904 or 1910, because the country was ruled by an Oriental despot," has been improved under the rule of "the power which has deprived Korea of any possibility of self-government" is not explained.

Both Robequain and Grajdanzev fail to balance the advantages and disadvantages of imperialism in an impartial manner. In reference to Indo-China, for example, Emerson states, "The French regime there appears never to have succeeded in capturing the imagination or the loyalty of the peoples of the country and the collapse of France must have shattered the sense of French superiority."¹ And later, "Politically and socially the French regime has never rested upon very stable foundations. . . ."² Because of this, and the fact that Japan has occupied the area, he suggests that a more direct international administration may be preferable to the establishment of a French mandate. The weaknesses of French rule and French responsibility for the exploitation of the people of Indo-China are not clearly revealed by Robequain.

On the other hand, Grajdanzev attacks the whole imperialistic pattern and

¹ Rupert Emerson, *The Netherlands Indies and the United States* (Boston, World Peace Found., 1942), p. 70, and 87.

² *Ibid.*, p. 87.

one cannot help but feel that much of what he says about Japan could be equally well said about Western imperialisms. The major weaknesses of his book are that it does not give an objective evaluation of resource developments in Korea, nor does it indicate the great benefits that may be reaped from Japanese investments, technical training, and institutions by a government devoted to advancing the welfare of the Korean people.

Both books present excellent descriptions of the physical features of the countries; mineral resources, agriculture, transportation systems, industries and trade are all discussed in detail. The authors have accumulated and organized a vast amount of factual data from a wide variety of sources; this makes a great contribution to the literature available on these two countries.

Certain common characteristics are revealed; in both Indo-China and Korea, mining, large industries and development projects are essentially monopolies of foreign capital. In both countries the native population has increased rapidly and has been a source of cheap labor, agricultural tenancy has increased under foreign rule, and trade has been oriented to the advantage of the mother countries. In both cases two fundamental problems of the future will be the constantly increasing pressure of the population on soil resources and the necessity of reorienting their economies to wider trade relationships; in addition many of the inequities resulting from monopoly and imperialistic rule will have to be eliminated.

The problem of establishing self-government in Korea, however, will be much simpler than in Indo-China. This is true for several reasons; the Korean people are one people while French Indo-China is essentially a loose federation of several different peoples; transportation and industry have been developed more rapidly in Korea and there is an abundance of physical resources for further rapid development. In Korea railways, electric power, telephone and telegraph, postal services, and some industries are already nationalized; the monopolistic nature of other large-scale industries such as chemicals, together with the present system of government controls, makes it relatively simple to allow national ownership to replace the exploitative monopolies of the past. Also, much of the structure of law, finance and government is such that it can be taken over by the Koreans and used to advance the prosperity and freedom of the people. On the other hand, the regions of Indo-China have very diverse interests; there has been less effective control over the economy and the government organization is not centralized.

In his discussion of Korean independence, Grajdanzev makes a strong plea for a mixed economy with social ownership of monopolies, private enterprise and cooperative, functioning side by side. While advocating an independent Korean republic he recognizes the danger of class government and our interest in seeing that a new ruling class does not seize power.

Both books provide valuable background material for all students of colonial administration and the problems involved in developing democratic self-government.

ARTHUR C. BUNCE

Washington, D.C.

Economic Systems; Post-War Planning

The Economics of Peace. By KENNETH E. BOULDING. (New York: Prentice-Hall, 1945. Pp. ix, 278. \$2.75.)

Professor Boulding combines a thorough knowledge of modern economic analysis with an unusual talent for clear, forceful exposition. The result is an excellent book on the economics of the peace ahead of us. For beginning students and for the general reader, it would be an even better book if the author had limited himself to fewer topics and had developed each at greater length. But for more advanced students, and others with the necessary background, it provides a most enjoyable and rewarding survey of the problems with which we are already, or soon will be, confronted.

The book runs the whole gamut, from the immediate physical reconstruction of devastated areas to long-run policies for maintaining full employment and restoring a high level of international trade. Along the way, the author pauses to consider the economically backward parts of the world, where low productivity and population pressure are still the main causes of poverty, and also to discuss the question of justice in the distribution of incomes. He ends up with an excursion outside the limits of economics proper into the realms of politics and morals.

The reader will find not only that the exposition of familiar ideas is unusually skillful, but also that there are many bits of analysis which throw new light on the subjects analyzed. To pick a few examples almost at random: There is the explanation of how inflation affects consumption, output, and employment after a war (pp. 24-29); or the analysis of the multiple commodity standard and its relation to price and income stability (pp. 155-159); or the way the author explodes the notion that depressions furnish a useful corrective for the maladjustments that occur in a boom (pp. 171-174). There are many more analyses equally good. One of the best passages is the one in which the problem of income flows is analyzed. The author makes the customary division of the community into three groups: business, government, and the public. He then uses the concept of budget deficits and surpluses to explain how any one of these groups can contribute to an increase or decrease in the total income stream. This analysis is one which the teacher, struggling to get these ideas across to students, would particularly like to see expanded. As it is, it is much too brief for the beginner, in spite of its neatness and clarity.

The policy Mr. Boulding recommends for maintaining full employment is less likely to meet with general agreement than his analysis of the factors that determine the level of employment. He wants the government to compensate for variations in private spending by varying tax rates rather than the volume of its own spending. Logically this is all right, of course; a deficit can be created by reducing receipts as well as by increasing expenditures. But from a psychological and political point of view the variable tax plan has serious disadvantages. People would resent bitterly having tax rates changed every time there was a change in business activity and they would

also find it much more difficult to understand how the change in tax rates would affect activity. It is probable that the absolute level of government expenditure and receipts has a significant effect on income and employment.¹ The deficit would thus have to be larger on a low level of expenditure than on a high level. The author's main objection to varying government expenditures is that it would lead to the waste of resources in "boondoggling." But there surely can be enough flexibility in housing, conservation, and other socially valuable projects to avoid this difficulty.

Even more serious than the problem of cyclical fluctuations is the prospect that we may be faced with a chronic deficiency in demand. "For nearly two centuries the economic world has been an 'expanding universe'—expanding geographically, expanding in population, expanding in capital equipment. . . . We are now somewhere within sight of an era in which *income* can rise but capital will not. . . . It is the shadow of the classical 'stationary state' that hovers over our day, and though it may be postponed by wars, by new discoveries, and by the opening up of new geographical areas to investment, yet these things only seem to be a postponement" (p. 181). It would be possible, of course, to compensate for a chronic, as for a cyclical, deficiency in private demand by reducing the government's receipts as well as by increasing its expenditures. As already pointed out, however, the level of both expenditures and receipts must be taken into account. And from a practical point of view it is much more important to emphasize the necessity for keeping expenditures at a relatively high level than to emphasize the desirability of reducing taxes. Many people—and particularly those with economic and political power—are still hostile to the expansion of welfare expenditures: expenditures, that is, for health, old age security, housing, and the like, which we may hope in another decade or so, with the development of a strong international security organization, will constitute the bulk of the government's spending. These people would undoubtedly be much more receptive to a program emphasizing tax reduction. But if it relied on their support, the program would be unlikely to achieve its objective of insuring full employment: most of the enthusiastic tax-reducers are equally enthusiastic budget-balancers.

There are a few technical points on which the author's treatment seems open to question. On page 164, he suggests that in 1933 a deficit of 20-30 billion dollars "would have been large enough" to bring national income back to the 1929 level. This figure is certainly far too large. Net investment in the late twenties was around 10 billions. There was apparently little change in the propensity to consume (in the schedule sense) in the thirties. If anything, it may have increased somewhat. Thus the deficit would not have had to be more than 10 billion dollars, even on the improbable assumption that net private investment would not have responded at all to the rise in national income.

On page 167, Mr. Boulding says that borrowing from the public has "a direct deflationary effect which may in large part counterbalance the in-

¹ Cf. Paul Samuelson in *Post-War Economic Problems* (S. E. Harris, ed., New York, McGraw-Hill, 1943), p. 44.

flationary effect of the deficit." It *may*, of course, but is it likely to? How many people in peacetime are going to reduce their consumption merely because the government is putting out a new issue of bonds? In view of the low interest rates on government bonds and the strength of the other factors determining the propensity to save, I should say very few indeed. It seems to me much more realistic to stick to the usual Keynesian assumption that government borrowing in peacetime has no appreciable effect on the propensity to consume.

In discussing the national debt, Mr. Boulding cites Mr. A. P. Lerner's view that there is "no limit beyond which the debt cannot go without danger" (p. 121). But if I am not mistaken he leaves out Lerner's main point, namely, that the government can and should, as long as there is no danger of inflation, borrow to pay the interest on the debt. If the government has to tax to pay the interest, some one is going to be disappointed, and is likely to make a fuss about it. But if the government borrows to pay the interest this difficulty disappears. So far as I am aware no one has yet discovered any serious flaw in this solution to the problem. Mr. E. D. Domar in his elaborate analysis of the relation between the debt burden and the national income² gently pushes it aside to protect the reader from a shock: "To many, government investment financed by borrowing sounds so bad that the thought of borrowing to pay interest charges also is simply unbearable."³

There are a few other imperfections: for instance, the author pays no attention to saving (as a function of real income) in his analysis of price and wage deflation as a cure for unemployment (pp. 141-142); and in the discussion of taxation as a means of driving idle money into "investment" (p. 153) he neglects the distinction between investment in securities and investment in capital goods. But these difficulties are of minor importance. For the most part, the analysis is on an unusually high level of technical excellence; and, equally important, it is developed with vigor and imagination which hold the reader's interest and stimulate his thinking.

ALAN R. SWEETZ

Williams College

The American Way of Business—The Rôle of Government in a System of Free Enterprise. Analysis by OSKAR LANGE and ABBA P. LERNER. Teaching aids by A. W. TROELSTRUP. Prob. in Am. life, unit 20. (Washington: Nat. Counc. for the Soc. Stud.; Nat. Assoc. of Secondary-School Principals. 1944. Pp. 93. 30 c.)

The pamphlet is designed to explain the American way of business to secondary school teachers who, in their turn, may transmit the knowledge to millions of youngsters throughout the country. It has been prepared by two well-known economists and by a master teacher who was responsible

² "The 'Burden of the Debt' and the National Income," *Am. Econ. Rev.*, No. 4 (Dec., 1944), pp. 798-827.

³ *Am. Econ. Rev.*, Vol. XXXIV, No. 4, p. 799.

only for developing the teaching aids. This study is concerned with both the present and the future. The description of the existing economy is supplemented by a comprehensive program of economic reorganization.

The unsophisticated reader of such a popular account will hardly expect any marked deviation from generally accepted opinions. He will not be prepared to discover that "the rôle of government in a system of free enterprise" is defined in terms which are incompatible with the American way of life. Many who fail to realize from the very beginning that the authors have taken the liberty of interpreting the fundamental concepts of economic organization in an uncommon and arbitrary manner will be surprised with the final results of the analysis.

As defined by the authors, the system of free enterprise is identical neither with capitalism nor with an economy in which private initiative dominates. They contend that even an economy largely owned and controlled by the government can be called a system of free enterprise so long as competition between all economic units is kept entirely free. The free enterprise system, therefore, is not linked inseparably with the preponderance of private enterprise. From this point of view, the authors promise to explore "some general principles which would permit us to make the best use of both the public-enterprise instrument and the private-enterprise instrument, both of them directed to increasing the efficiency of our society and both subservient to the individualist philosophy of giving the individual ever greater freedom to develop his personality and to enjoy the good life" (p. 12). They object to the usual assumption that a broadening of the public sector and an intensification of governmental control cannot be reconciled with individualism. Public or collectivist enterprise as a mechanism of economic organization and collectivism as a philosophy of society are to be separated (p. 36). Like the old classical writers, the authors believe in an harmonious natural order. They still trust the "unseen hand" of eighteenth century individualism as the wisest regulator of economic activities. They are confident of finding a mechanism "in which individuals when they try to benefit themselves, will be benefiting society as a whole whether that is their intention or not. . . ." "This harnessing of private interest for the general good is the essence of all social organization" (p. 11).

This approach, if followed with frankness and consistency, must lead to conclusions diametrically opposed to the generally accepted principles of free enterprise. If Marx's system can be termed an "overturned Ricardo," the Lange-Lerner system may not unfairly be described as that of an "overturned Smith." Several paradoxical statements of the ingenious analysis will serve to illustrate the point.

Two basic rules for public enterprise are formulated. First, its products should be sold on a free market with the same price for the same good for everybody. By following this rule, marginal utilities are equalized: "Everybody is at least as satisfied with what he has as he would be with anything that anybody else would be willing to give him in exchange for it." The authors are hasty in concluding that compliance with this rule guarantees

an "ideal distribution" of consumers' goods. It may, of course, be argued that distribution is ideal only with reference to the budget of the individual. As long as a social-economic stratification exists, the absolute valuation of goods will differ as between social groups and classes. The rich, for instance, may get more than they "should" of all consumers' goods. According to the authors, however, there is no reason for alarm. The undesirable situation can be corrected by a method which former economists would never have classified under the tools of free enterprise, namely, the leveling of purchasing power through governmental action: "The remedy for this is to give them [the rich] less *money* to spend (or take some of their money away by taxes), so that they buy less goods in general, thus leaving more for other people" (p. 14).

The second rule prescribed for public enterprise states that factor price should equate the value of marginal product, which means that efficiency should prevail over profit making. The alternative rule of equating price and average cost may lead to wasteful use of economic resources and therefore should be abandoned. Under this alternative rule, output could be extended to a point where marginal cost exceeds price, that is, where it would be better to use such resources for other purposes. The authors admit on the other side that compliance with their own maxim may even involve a loss. If every factor of production is used up to the point where the value of the marginal product equals the price of the factor, output may be extended not only beyond the point of maximum profit, but also beyond the point where total costs are just covered by total revenue (p. 19). Still it is emphasized that the complete disregard of whether there are any profits or even losses, while going much against the grain, promotes truly social welfare.

According to the authors, the collectivist rule is also in harmony with the behavior of private enterprise under free competition. Since neither buyer nor seller is able to influence the price, profits will be maximized by a management which extends output to the point where marginal cost equals marginal price. Free competition, therefore, leads to the best allocation of resources between different employments. Since, however, in our economy, conditions of perfect competition are the exception rather than the rule, actually such an ideal allocation of factors does not exist. Under imperfect competition, management is interested in the restriction of sales. The economy as a whole loses in efficiency. In philosophical terms, there is a conflict between the individual interest and the collective interest.

For all these cases, these proponents of free enterprise, new style, recommend government intervention. Yet they are somewhat bearish regarding the program of a dissolution of monopolistic combinations. This measure may not result in a state of perfect competition if the optimum size of the firm in relation to the market is large and each firm thus by itself is big enough to be able to influence the market. Legal restrictions on the size of the firm are not suggested, because they sacrifice the greater efficiency of the larger firms, and thus, do not serve social welfare. Better than legislation directed simply against "bigness" is the removal of any private influence on price.

This governmental action is termed "counterspeculation." Restriction of output for the sake of monopoly profits can be prevented by two policies: either by pegging the price, which means artificially creating the conditions of perfect competition, or by a government guarantee of an equilibrium price to the manufacturer. The second device, which would be more effective than a government guarantee of a minimum price, works in the following way: If the market price falls below the guaranteed level, the government pays the difference to the firm; if the market price exceeds the guaranteed level, the firm pays the difference to the government.

By such reasoning, the authors arrive at a simple justification of government subsidies. Since private enterprise must survive, but is inferior to public enterprise which is prepared to absorb losses by relying on government funds, both kinds of economic organization should be put on an equal footing. "Free enterprise" calls for a policy under which "private enterprise should enjoy the same prerogative of running at a loss that is enjoyed by public enterprise (pp. 33-34). Ideologically, it is an innocent measure. A policy by which "some defects in private enterprise mechanism" (p. 28) are corrected is a vital element rather than a violation of free enterprise.

Apparently, the authors are convinced that the American way of business and free enterprise has never been achieved in the past, but is a goal to be approached in the future. Otherwise their suggestion for the assumption of government responsibilities unparalleled in American history could hardly be understood. The government is to be charged with the responsibility for keeping the total money demand for all products of industry at the right level in order to eliminate both unemployment and inflation. This should be achieved through so-called functional finance. This scheme, expounded in some former writings of Professor A. P. Lerner, embraces more than compensatory spending and counter-cyclical budget devices. Although the section of the pamphlet dealing with functional finance is rather sketchy, we know from an article by Professor Lerner¹ that it involves a radical re-orientation in fiscal policies. Taxation, for instance, should never be undertaken merely for revenue purposes, but for the purpose of reducing the money in the hands of the taxpayer. Expenditures should be financed primarily by creating new money (money, of course, interpreted in a broad sense, including bank deposits). The government should borrow only if it is desirable that the public should have less money and more government bonds. Astronomical figures of the national debt are negligible as long as the government succeeds in keeping total spending at the right level.

The authors seem to believe that functional finance has ceased to be the hobby of a small group of professional economists and that they may claim to represent current American thought. Only under this assumption would it be justified to incorporate it in an analysis of the American way of business. A lack of criticism in scientific journals should not be taken as evidence of an overwhelming success. Nevertheless, we meet here with the surprising

¹ *Soc. Research*, Vol. X, No. 1 (Feb., 1943), pp. 38-51.

contention that "functional finance is now partially and unwillingly being practiced by all the nations at war." Although the authors do not dare to proclaim total victory they declare that "the resistance to Functional Finance is diminishing as a result of the lessons of the depression and the war" (pp. 40-41).

The following "democratic program of economic reorganization" is nothing other than a huge plan of governmental economic control. Both public ownership and governmental regulation is to be broadened. "Because of the limitation of the effectiveness of the other means of restoring the competitive 'rules of the game' public enterprise must become a major constituent of our economy if we are really going to have economic prosperity" (p. 51). Nationalization of banking and credit institutions, of monopolistic key industries and of basic natural resources, however, should be carried out with compensation to the owners in government bonds. It is a characteristic point in the argument that nationalization encroaches only apparently upon the principle of private property and enterprise. It removes only its "degenerated outgrowth," which by its anti-social behavior blocks economic prosperity; "private enterprise is strengthened in all fields where it has a genuine social function" (p. 55).

The reader may feel uncertain how private enterprise can be strengthened by such radical amputations. He may also keep wondering whether the study on the American way of business should not have deserved another title, perhaps one adapted from a famous work of a French philosopher of the eighteenth century: *On the Grandeur and Decadence of Free Enterprise*.

Fritz Karl Mann

The American University

Democracy Under Pressure: Special Interests vs. the Public Welfare. By STUART CHASE. (New York: Twentieth Century Fund. 1945. Pp. ix, 142. \$1.00.)

Stuart Chase is presented by the Twentieth Century Fund as "America's most widely read author on economic subjects." Since Mr. Chase's sources are all frankly drawn from the research of others, his unique contribution lies in the art with which he contrives to weave together such materials.

The tone of the book ranges from gentle foreboding to sentimental optimism; it manages to be persistently sprightly even while admonishing. The reader is assumed to be a well-behaved nephew receptive to moralizing if couched in secular language. The moral of the book is the economic and political validity of the golden rule. Good sound doctrine to us all, but even more to Mr. Chase! We read, "The pressure groups seem to be largely led by men who are ignorant of the fact that we are our brother's keepers. They think such talk is Sunday School stuff. They are wrong. It is the first law of modern technology" (p. 6).

The author objects to pressure groups as "Me First" organizations, although he admits that some are "out to improve the world" and that "they are the

hallmark of a dynamic democracy" (p. 17). Does this mean that groups organized to "improve" other people are *ipso facto* superior morally and economically to groups organized to advance themselves?

The reader is confronted with a first-rate dilemma by page 20: "If the pressure group free-for-all holds the stage, economic breakdown is not far away. If the government is in charge, there is the danger of the authoritarian state."

The author reviews the oft-repeated misdeeds of Big Business, Big Labor, Big Agriculture. He is also bothered by Big Government. While repeating the familiar story of organized selfishness, he now and again deflates his own balloons in almost casual asides (as, for example, "The Lords of Creation . . . where are they now?") (p. 37).

In policy terms, Chase urges that we "level out the business cycle, underwrite a high level of employment and bring monopolies under control." To accomplish this, the author warns, the American people must learn to discipline themselves. To achieve this moral upsurge Chase innocently offers a highly pragmatic doctrine. The theme of the book the author states in one borrowed sentence: ". . . this is a time when no group of free enterprisers in an insecure society; a time when the pragmatist works for the security of his fellow men in order to secure his own" (p. 79). Philosophically, is this doctrine not based upon the same "Me Firstism" condemned earlier by the author?

Finally, Mr. Chase quite pertinently asks: "Who's in charge around here anyway in the mid-1940's?" The question is, however, not answered. Are we to take the following as a lead: "The consumer interest is always the public interest"? And the author adds: "Every American is either a consumer, or dead." This gives a rather ghostly quality to some of the Me-First boys previously described.

In summation, Mr. Chase staunchly favors the registration of lobbyists, more publicity of their activities, less individual concentration on the "main chance," "getting together," and "an authoritative survey to show who is responsible for what in this humming, complicated power age." All of which seems to lead to the conclusion that if the rest of us keep humming, hoping and consuming, the best minds who think "in terms of the whole community" (not the kind of people who are active in the Me-First groups) will work out an Agenda for 1950. Mr. Chase suggests that they meet in Sun Valley. I suggest that Mr. Chase read the *Tyranny of Words* and ponder the wisdom that he then compiled.

In his treatment of the complicated power relations of our society, Mr. Chase seeks refuge in exhortation and uses concepts that have no operational meaning or no "referent" susceptible of exact analysis. The writer who addresses himself to the multitudes has a higher duty than to make complex problems seem simple. His job is to make them as clear as possible, but if today we can see only "as through a glass darkly, then face to face" this is preferable to artificial simplification and secularized political pietism.

PENDLETON HERRING

Harvard University

Business Cycles and Fluctuations

Studies in Economic Dynamics. By M. KALECKI. (New York: Farrar and Rinehart. London: Allen and Unwin. 1944. Pp. 92. \$1.50.)

Relatively little has been accomplished in the direction of establishing the laws governing economic development in time. This is quite remarkable when one reflects that our empirical knowledge of society is given mostly in dynamical form, *i.e.*, times series. Furthermore, the most important and interesting problems are surely connected with the long-run course of events. It is altogether possible that the investigation of dynamic relations will prove more fruitful than further elaboration of static ones. After all, it was on dynamics, not statics, that modern physical science was primarily founded. In this promising direction Kalecki has ventured in four of the five essays in his newest volume.

In Part I there are three sections each of which takes up a separate topic. The first deals with costs and prices, attempting in particular to formulate the determinants of the relative share of wages in output. The second contains the statement and application of a theory of the long-run levels of interest rates. In the third Kalecki develops his cyclical theory of profits into a more general theory with especial reference to the Keynesian problem of a continued profit rate lower than the interest rate. In a sense his long-run analysis, as distinguished from his cycle apparatus, is not dynamic. The relations are static with no lags or derivatives. Therefore the conclusions do not attempt to say what must happen, but rather what must follow if certain things do happen.

The essay on rates of interest illustrates the attractions and difficulties of econometrics. Making use of English data from 1930-38, Kalecki finds statistical corroboration for the hypothesis that there is a positive relation between the velocity of money and the short-term rate of interest. Then he considers the hypothesis that the difference between short-term (expected) and long-term rates is linearly dependent on possible speculative losses. From this it follows that the two are linearly related. The result is then compared with the behavior of Consols and the discount rate from 1849 to 1938 with apparently striking agreement. The values of the parameters are determined separately for before the last war and after, and in neither case are they unreasonable. The author seems to hold that this settles the problem of rates of interest: velocity determines the short-term rate, which in turn fixes the long-term rate.

There are, however, some difficulties. His data for velocity and the short-term rate are annual and for the 1930's only. This is rather a short and exceptional period to use as conclusive confirmation. In fact, the data for the 1920's would not yield quite the same result, and hence one must beware of a simple interpretation. His reasoning rests on a strong effect of the short-term rate on the economizing of cash for transactions, but such an effect is a rather thin reed upon which to rest the whole relation between money and interest. It is, in any case, possible that the more important relation is between velocity

and the present and expected long-term rates. In addition there is the difficulty of empirical work wherever expectations enter. Kalecki equates the expected short-term rate with its actually realized average over varying periods, some short, some long. It seems questionable to identify the two, for how can investors base their expectations on what does not yet exist, especially since the rate is highly variable?

In the essay on "The 'Pure' Business Cycle," Kalecki presents a much revised and elaborated version of his original model. One feature is essentially unchanged, an analogue of the multiplier applied to non-labor income. In its present form the theory makes the rate of change in net real investment depend on the rate of change of non-labor income and on its own value some time previously. Particularly important is his introduction of variable coefficients into the system. To the earlier model, Frisch offered the objection that it was not convincing to assume that the coefficients had exactly those values which would give undamped cycles. Now Kalecki meets the objection by the use of variable coefficients, which make his system necessarily undamped. The quantitative nature of the variation in the coefficient is not stated, hence, unfortunately, his proof of no damping is plausible but not rigorous.

There are formidable mathematical difficulties in the solution of a mixed difference, differential equation with variable coefficients: in fact, an analytic solution is, no doubt, out of the question. It is presumably for this reason that we are not told what the condition of oscillation is. Also this must be the reason for the lack of any attempt at empirical verification, a distinguishing feature of Kalecki's work. He does give, however, a sample graphical solution.

The final portion of the book is an attack on the important problem of the trend and the cycle. The factors giving rise to trend are introduced explicitly into the cycle mechanism, which is an advantage over most mathematical models. Nonetheless, Kalecki, unlike Schumpeter, evidently believes that cycles would exist even in the absence of trend, since his system would oscillate with zero trend. He considers increasing population and productivity as necessary but not sufficient conditions for the long-run development. His conclusion is that the chief determinants of trend are changing habits of capitalists' consumption, *rentiers'* savings (which, surprisingly enough, enter negatively), and innovations.

R. M. GOODWIN

Harvard University

Public Finance; Fiscal Policy; Taxation

The Problem of Valuation for Rating. By J. R. HICKS, U. K. HICKS, and C. E. V. LESER. Nat. Inst. of Econ. and Soc. Research, Occasional papers VII. (Cambridge: Univ. Press, New York: Macmillan, 1944. Pp. vii, 90. \$2.00.)

This study is the second in a series being made by the authors under the auspices of the National Institute of Economic and Social Research. The first,

Standards of Local Expenditure, disclosed that "high rates are more often a consequence of low rateable value than of a high propensity to spend." The third and final study of the group will attempt to measure the incidence of rates by an examination of the percentages of the incomes of rate payers that go into such payments. But in recognition of common knowledge that taxable values are not proportional to rentals, the authors found it necessary to make a study of valuation for rating before undertaking the one on incidence.

The heart of this investigation is a statistical analysis of the rateable valuation of dwelling houses in 1938 as compared with their rentals. The data used were made available by the Departmental Committee on Valuation and Rating, which had collected a large number of returns for that year on rates and rentals. This division is preceded by introductory material on the history of rates and of reforms in their assessments, and is followed by a consideration of the problem of improving the accuracy of the valuations made.

The American reader familiar with the quality of property assessment in this country will not be surprised to learn that inequalities also exist in the rating of property for taxation in Great Britain, but he will note that what the authors call chaos would indicate a rather satisfactory assessment in many cities and counties of the United States. For example, the fact that in the Manchester area houses with a gross rent of less than 20 pounds, 10 shillings were on the average assessed at 86 per cent of rental value, while houses with a gross rent of 60 to 100 pounds were assessed at 98 per cent, will not impress such a person as a serious inequality. The divergencies in type of inequalities in the assessment of property in Great Britain from inequalities in the corresponding assessment in this country will also be of interest, even though in the one country the valuation is on the basis of the rental and in the other the capital value. Thus, contrary to the usual practice in America, the smaller and cheaper houses within any single district were commonly assessed at a lower ratio of taxable value than were the larger and more expensive houses. Houses constructed before the First World War were also underassessed as compared with those constructed after its close. Owner-occupied houses were undervalued in relation to houses occupied by tenants.

The levy of rates is justified as a stable source of revenue essential to the maintenance of autonomy in local government. "The stability of rateable value as a source of revenue is probably the decisive argument in favour of rates; for it follows from this that the rating system cannot be abandoned without a radical change—for the worse—in the political character of English local government." Thus neither benefits accruing to property owners from the services of local government, nor any ability to pay attaching to the ownership of property are recognized as of significance in accounting for the importance of this form of taxation.

Emphasis is laid in the recommendations on the desirability of transferring the responsibility for assessment to a central authority. This step is argued for the political reason that valuation ought not to be a matter of local policy, and for the financial one that local units cannot afford the professional service essential to an accurate assessment. The traditional doctrine that the best

basis for rateable value is a free or uncontrolled rent paid by a tenant is reaffirmed. Consideration is, however, given to assessment on the basis of sales value. But the general use of this alternative is rejected mainly on account of the infrequency with which real estate is sold, and the greater fluctuation of sales than of rental values, though a special use of sales value is suggested as a safeguard against the tendency toward undervaluation of owner-occupied houses. Reform of the system of rating is held to be important lest the confusions superimposed by the Second World War lead to the abandonment of rating and thereby imperil local government.

The statistical work gives evidence of careful performance. The authors are aware of the nature and limitations of their data, as well as of the proper methods of presentation. And the work as a whole bears throughout the marks of thoughtful, scholarly study. Although the treatment is condensed, this pamphlet contains much material of interest to one who would like to learn something about the British rating system and its problems.

M. SLADE KENDRICK

Cornell University

Federal Finance in Peace and War. By G. FINDLAY SHIRRAS. (London: Macmillan, 1944. Pp. xvi, 377, 21s.)

In the new era of international coöperation which we hope is emerging, studies of comparative finance will be particularly timely and useful. G. Findlay Shirras has started the ball rolling with this substantial analysis of the finance problems of the United States, Canada, Australia, South Africa, and India. These countries were selected because they possess fundamental constitutional likenesses (federal systems) and continuity of history. Both pre-war and war experience are included. Emphasis is placed upon intergovernmental fiscal relations in each country.

The author's qualifications for this project include thirty years of service under the Crown in India, a previous two-volume work entitled *The Science of Public Finance*, and the more recent quantitative study on *The Burden of British Taxation*.

Part I of the book consists mainly of a chapter on each of the selected countries, considering the factors of national income, international trade, the war effort, the federal system, taxes, public debts, expenditures, intergovernmental transfers, and other political and economic characteristics. Taxes are classified into groups, and tax systems are compared for progressivity or regressivity. Extensive tables on taxes, expenditures, and debts are presented in the text and are supplemented by the additional quantitative data comprising Part III.

By way of comparisons, Canada and Australia are much more dependent upon a foreign market than is the United States, and their tariff policies create more sectional conflicts. The incidence of the Australian tariff is largely on the extractive and exporting industries. The tax system of the United States is much more progressive than that of either Australia or pre-war Canada. In the case of Australia this may seem surprising when one recalls the labor party successes in the politics of that country. But labor has a

vital stake in the Australian tariff. The per capita income in all three countries is very high compared with that in South Africa and India.

Part II consists of two chapters devoted to an analysis of the problems of intergovernmental fiscal relations in the light of the previous survey. Generalizations and recommendations are made. Here the author has the advantage of studies sponsored by the governments of the selected countries, including the report of the Canadian Royal Commission on Dominion-Provincial Relations (1940) and the report on federal, state and local fiscal relations sponsored by the U. S. Treasury (1942).

One of the main generalizations is that generalizations are difficult and dangerous—that improvements in intergovernmental fiscal relations must be adapted to time and place and to the historical facts and traditions of each country. Devices such as shared taxes, credits, and aids which might work well in one country and for a given tax might be ill-adapted to other situations. The author is impressed by the democratic values associated with virile and independent state and local government; but he realizes, too, that the central units, through compensatory spending and other fiscal policy devices, must take the lead in dealing with such vital matters as business cycles and chronic unemployment. An intergovernmental fiscal authority representing all three layers of government, as recommended by the U. S. Treasury Committee, appeals to the author as an agency which could be extremely useful in all these countries. Central units should do more to assist the states in eliminating territorial multiple taxation; and a revolutionary change in the attitude of public officials, both at the center and the periphery, is needed. These and other conclusions are not very spectacular but they are commendable for their restraint and good sense.

Readers who are intimately familiar with the facts about one or more of these countries may object to some of the author's observations about them. For instance, the conclusion that the President of the United States and his cabinet completely overshadow Congress in controlling financial legislation seems considerably exaggerated. However, it is exceedingly difficult for an outsider to get a perfect perspective of a country's political traditions. On the whole, the author appears to have done remarkably well in this respect.

Exception may also be taken to the unqualified statement that corporate net income taxes "are on surplus and fall on the shareholders."

The author has contributed an abundance of factual data and descriptive detail, as well as considerable analysis, to facilitate valuable comparisons between the federal financial systems of the countries included in his study.

HAROLD M. GROVES

University of Wisconsin

Living on the Public Debt. By HASTINGS LYON. (New York: Felsberg. 1944. Pp. 146. \$1.75.)

This little book shows a lot of thought, but the questionable nature of some of the assumptions and analysis impairs the validity of its practical conclusions.

Professor Lyon believes in the efficacy of wage cuts and the inefficacy of

deficit spending in achieving full employment. His attitude is epitomized in the sentence: "Though we will not let people starve, public spending for the maintenance of those not employed in the voluntary economy should be on such terms as are unlikely to sustain the wage scale in industries suffering from unemployment" (p. 100). He makes a sharp distinction between the *voluntary* economy, which turns "on a pivot of individual choice," and the *compulsory* economy, which turns "on a pivot of authority." He feels that advocates of deficit spending propose to shift the center to the compulsory economy.

The wage-cut argument employed here ignores the detrimental effects on demand and assumes the absence of monopolistic impediments to the downward adjustment of prices. "We propose," Professor Lyon says, "a way out of a depression by reducing *some* wage scales thereby raising the aggregate of wages and other economic shares through reemployment achieved by arriving at a price schedule which will clear the market" (p. 16). His definition of voluntary unemployment is fully consistent with this attitude. A man is considered to be voluntarily unemployed "if he can get a job at any occupation, at any wage, anywhere (and whether at day or night work)" (p. 64).

A large part of the book is devoted to the establishment of such propositions as that there is "no multiplier in deficit spending" (p. 66). The analysis cannot readily be summarized but the intensity of analysis engaged in here may perhaps be illustrated by a summary statement: "Of itself, public spending merely represents the balancing deficit of the production-consumption economic budget out of balance in terms of a full employment parity price (price \$1.00)" (p. 73). A few good points are raised in the multiplier discussion. Employment will not rise in so far as the public expenditures are dissipated in higher prices and in so far as public relief expenditures merely supplant individual dishoarding.

Economists who specialize in fiscal theory should read this book because of its analytical pretensions. Perhaps when economic conditions change and presently unrealistic assumptions become realistic some of the conclusions may become more generally palatable. Who can say when a Gesell of today—and which Gesell—will influence the Keynes of tomorrow?

HAROLD M. SOMERS

The University of Buffalo

Taxes without Tears. By DONALD BAILEY MARSH. (Lancaster: Jaques Cattell Press. 1945. Pp. xvi, 207. \$2.50.)

Fiscal policy as an instrument for the enhancement of general welfare is vigorously defended in this volume. The author, assuming that private enterprise "is likely to remain the most important sector of the economic system for some time to come," contends that free enterprise *ought* to mean "freedom from unemployment, monopoly, and gross inequality in the distribution of income" (p. 177). An aggressive and enlightened policy of federal finance is held to be essential to freedom from these acknowledged economic ills.

This book has been systematically prepared and is conveniently divided

into three parts. It seeks to show that fiscal measures may be used effectively, first, as positive aids in creating and maintaining full employment; second, as means of attacking the problem of monopoly; and finally, as devices for lessening inequalities in wealth and income distribution. The section dealing with employment is direct and challenging, being based upon the familiar idea of a flexible budget. The suggested method of handling monopolies is novel and, as the author admits, it is likely to be regarded as impracticable. The treatment of the perennial issue of inequality is orthodox in the large, except that more than usual emphasis seems to be attached to the rôle which inheritance taxation should play in yielding a solution. Helpful to the reader is the concluding chapter containing a concise summary of suggestions made in each of the separate parts of the book.

The well-known thesis that total expenditures, public and private, must be high enough to assure adequate incomes, production and employment is advanced with force in Part I. It is pointed out that balanced budgets and stable tax rates are not always conducive to full employment. In presenting his views the author supports, with reservations, the spendings tax, direct payments to consumers and an interest-free national debt.

The reader is reminded in Part II that, where monopoly exists, a concealed subsidy is taken from the public in the form of restriction in output, misallocation of resources and lower real income. The remedy may be found in regulation, which to date has been ineffective; in extension of public ownership, which is currently inadvisable; or in fiscal policy, which is recommended as a means of obtaining optimum output on the part of monopolies. A direct subsidy is proposed for monopolies. When this is added to marginal receipts, production on the part of monopolistic businesses could profitably be carried further. The monopoly profits could be taxed if desired.

Inequality in distribution affects investment and employment. In Part III the shortcomings of the progressive income tax as a remedy are cited. Attention is focused on the inheritance tax as a powerful weapon for achieving a high degree of equality without harmful indirect consequences.

This book is worthy of careful study and it should stimulate interest in the use of fiscal policy for a variety of purposes, although it probably will not bring many converts to the altar. The proposals for handling the monopoly problem appear to weaken, rather than to strengthen, the treatise. On the whole, however, a point of view on a controversial issue is skillfully presented.

C. WARD MACY

Coe College

Money and Banking; Short-Term Credit

Gold and the Gold Standard. By EDWIN W. KEMMERER. (New York: McGraw-Hill, 1944. Pp. ix, 238. \$2.50.)

Professor Kemmerer's objective in writing this short volume as stated in the Preface is to make a contribution to the formulation of an intelligent

public opinion on the problem of rehabilitating the monetary systems of the world after the war. The reader who looks for practical guidance as to the best method of meeting the pressing and exceedingly complex problems involved in such a rehabilitation of the world's monetary systems is bound to experience a feeling of being lead by Professor Kemmerer around the fringes of the problem without ever coming to grips with it. He will find no reference, for example, to the problems of blocked sterling balances, the anxiety of Latin America countries concerning the effect of the shutting off of wartime demands on their balances of payment, the economic and political forces driving all European countries to take continuing government control of foreign trade for granted as a necessity of post-war rehabilitation of their economies, the association in the minds of the British people of deflation and unemployment with the idea of the gold standard, the immense problems created by large internal debts for the banks of our own and other countries and the consequent domination of the level of interest rates by fiscal considerations, the special balance-of-payments difficulties of Great Britain—and many other problems which are, to most minds, very intimately connected with the rehabilitation of a world monetary system. There is no reference to Bretton Woods in this volume, no reference to state trading and, except for the statement that they should be gradually removed, hardly any reference to exchange controls.

Professor Kemmerer would reply, no doubt, that these various matters are not part of his subject, which is several times referred to in the body of the book as *gold money* and the gold standard. There is a rigid separation in Professor Kemmerer's mind between the study of the formal principles governing a monetary standard and the study of the environment in which such a standard has, perforce, to function. It is revealing to anyone who has not been trained by Professor Kemmerer to make this very sharp distinction to read on page 49:

The gold standard in England from 1821 to 1914, therefore, calls for very little historical discussion. Generally speaking, it functioned in an orthodox way, accompanied by many important developments in the bank-note and deposit-currency structure, which do not concern us here. . . . Concerning this gold-standard, one can quote without much qualification Carlyle's well-known aphorism, "Happy the people whose annals are blanks in history books."

Having eliminated so much from the scope of his book, Professor Kemmerer treats what remains clearly and simply and arrives at a prescription for the solution of our present-day problems of monetary rehabilitation which is based, it seems fair to say, much more on the monetary experience of the world before 1914 than on the experience of recent years.

In fact, Professor Kemmerer says on page 203, "The experience of the world since 1914 throws very little light on the subject of the international gold standard." He gives two reasons for this generalization: (1) that the world has had only a very limited experience with the international gold standard since 1914, and (2) that nearly all the experience it has had has been

with new forms of the gold standard established by financially weak governments in a very unstable post-war and wartime world. It is therefore natural that, in giving his prescription for the monetary standard of the future, Dr. Kemmerer identifies himself with a famous passage of the report of the Macmillan Committee which states that, "There can be little or no hope of progress at an early date for the monetary system of the world as a whole except as a process of evolution starting from the historic gold standard."

In leading the reader to an appreciation of the merits of the historic gold standard, Dr. Kemmerer treads a well-worn path. He takes the reader through the early origins of metallic money, the long historical struggle between gold and silver, the triumph of the gold standard in England and the history of our own difficulties with bimetallism. Throughout this discussion, which occupies one-half of the book, he rigidly excludes any treatment of banking problems but deals extensively with problems of coinage. The reader of our own day may be excused if he wonders at times whether he is indeed being helped toward an intelligent appreciation of the problem of monetary rehabilitation in 1945.

Professor Kemmerer deals with the breakdown, recovery, and relapse of the international gold standard between 1914 and 1936 in a brief chapter of twenty-five pages. He reviews briefly arguments for and against a return to pre-war parities after the First World War, but takes no position on the merits of the question. He contents himself with saying that there is no question but that many economic hardships experienced during the twenties, especially by Great Britain, are attributable in high degree to the policy of deflating to pre-war gold parity. He singles out as the most important facts concerning the gold standard of the twenties: (1) the war-weakened and distorted economic milieu in which the gold standard had to function, (2) the changed and ebilitate character of the gold standard, and (3) the brief period of its operation.

Professor Kemmerer's summary of the changed economic milieu of the gold standard after the First War, though brief, is comprehensive. It does not, however, appear to lead, in the remainder of his treatment, to any modifications in his views concerning the appropriateness of the pre-1914 system for modern conditions. Professor Kemmerer follows up, instead, the theme of the new weaknesses introduced into the gold standard by analyzing the gold bullion and gold exchange standards of the inter-war period, leaving the reader to assume that the pre-1914 arrangements would have been preferable.

Following this analysis, Professor Kemmerer draws up in Chapter VII a balance sheet of the gold standard. Because he here states fairly some of the criticisms made against the orthodox conception of the international gold standard as well as its virtues, this will be perhaps the most interesting chapter for the general reader.

He passes directly from this to a final chapter on the monetary standard of the future without referring again to a changed milieu. Most readers will find this a little disconcerting, since the milieu has certainly been changed as much by this war as by the last.

Dr. Kemmerer's concept of the rôle of management in modern monetary systems is here clearly stated as follows:

All monetary standards in modern times are more or less managed. It is not a question of the presence or the absence of monetary management, but rather of the extent and character of that management. With the gold standard, the management that will be required should be imposed upon a monetary system that is fundamentally automatic in its functioning and should be conducted according to certain established principles that will be accepted by the world's leading central banks under the authority of their respective governments.

This is the key to his practical recommendations which are (1) avoidance of "stabilization competition" by international consultation on exchange rates, (2) stabilization of monetary units at approximately their current values, (3) avoidance of inflationary policies, (4) gradual abandonment of exchange controls, (5) *de facto* stabilization when prices have reached their natural level, and (6) *de jure* stabilization. He recommends at the end of this process the gold coin standard for the richest nations and the gold exchange standard for the poorer ones. Finally, Dr. Kemmerer advocates the re-establishment of central banks rather than governments as the ultimate monetary authorities and the development of an international bank which would be a central bank for central banks.

WM. ADAMS BROWN, JR.

Washington, D.C.

Sistemas Monetarios Latino-Americanos. Vol. I. By BENJAMIN CORNEJO, and others. (Cordoba, Argentina: Imprenta de la Univ. Nac. de Cordoba. 1943. Pp. x, 502. 10 pesos.)

One might expect a book with this title to provide the reader with a well-rounded discussion of the structure and functioning of the monetary and banking system of each of the countries included. So oriented, and organized according to some basic plan, it could have served as a useful reference work for the student of Latin-American economic problems. Unfortunately, however, the eight separate essays vary widely both as to subject matter covered and as to length and thoroughness. Apparently each contributor was given *carte blanche* to write upon whatever aspects of his country's monetary system or experience interested him. The result is a volume without integration.

Although its title is certainly misleading, the book is not without usefulness, especially to the student of monetary history. The chapters on Venezuela and Colombia, for example (16 and 20 pages respectively), furnish a very brief history and an outline sketch of currency and banking laws; the chapter on Paraguay devotes itself mainly to monetary history and to exchange control; while that for Chile is concerned almost entirely with the increasing tendency of the Central Bank since 1931 to become a source of

loans to the government and thus to generate inflation. The chapter for Mexico is another which is largely historical. On the other hand, the different kinds of money, past and present, in circulation in Brazil are accorded detailed treatment, though there is little on the structure and functioning of the banking system. Perhaps the best-rounded section in the book is that dealing with Peru, where about half the total space (35 pages) is devoted to the varying fortunes of the gold standard in that country since 1900, the remainder to an analysis and criticism of the Kemmerer plan (1931) for the financial reorganization of Peru and to subsequent monetary developments.

Much the longest section of the volume (some 200 pages) is that on Argentina. Of this, over half is purely historical, the rest an elaboration of the legal status of the Central Bank and of its operations since its creation in 1934. To the extremely interesting system of exchange control in Argentina, only three pages are devoted.

So far as the book has any unifying theme, it is to be found in the common experience of the eight countries with depreciated currency—an experience which is an understandable result, as the introduction points out, of their lack of economic development, of turbulent political conditions, and of a consequent weak fiscal position, which led government after government repeatedly to finance its needs by direct government issues, or later, by borrowing from the newly-created central banks.

The Latin American countries not covered here are to be treated in a second volume. It is to be hoped that greater adequacy and continuity of treatment will there be provided.

P. T. ELLSWORTH

University of Wisconsin

International Trade, Finance and Economic Policy

United States Shipping in Transpacific Trade, 1922-1938. By WALTER A. RADIUS. (Stanford University, Calif.: Stanford Univ. Press, in coöperation with the Am. Council, Inst. of Pacific Relations. 1944. Pp. xvi, 204. \$3.50.)

Post-war American merchant marine policy is a topic of great current importance and presents problems which cut across many of the major domestic and international issues confronting the entire reconversion program.

The author has studied the transpacific segment of United States overseas shipping for the years 1922 through 1938, or roughly for the period between World War I and World War II, on the basis of which he makes three recommendations for future American shipping policy. These are: (1) Shipping statistics should be compiled on the basis of the routes actually sailed by vessels rather than on the present basis of "trade routes" which are arbitrarily chosen to show movements between United States coastal districts and individual foreign countries. (2) For the most efficient operation American vessels

should not be restricted by long-term subsidy contracts to a limited range of ports, nor to fixed routes; but should be permitted sufficient flexibility to take full advantage of changes in the flow of trade, and to seek balanced cargoes wherever they may originate en route. (3) The large outbound volume of low-value, bulky commodities in the transpacific trade which is not balanced by an equivalent amount of imports presents a promising opportunity for the employment of "Liberty" type vessels as subsidized tramp carriers.

Certainly, pre-war shipping statistics can be improved in many instances, and for intelligent administration they should be more complete, more accurate, and more uniform. Anyone who has tried to use them will testify to this and the author's suggestion in this regard is a constructive one.

As for the second recommendation, which in itself exemplifies the need for more complete statistics for efficient administration, there can be no question but that "The [Maritime] Commission should weigh national gain against local loss, and determine whether or not it is worth while to subsidize unnecessary inefficiencies in foreign services to protect local interests" (p. 186). In this connection Dr. Radius's attack on Sec. 809 of the Merchant Marine act of 1936, which modifies the competitive bidding provisions by permitting the Commission to give preference in the awarding of contracts to persons having local support, is well taken. This sop to regional interests is not consistent with the otherwise strict competitive bidding requirements of the act and should be rescinded. I believe, however, that the author fails to indicate the real cause of confusion when he criticizes the Commission for being unduly influenced by this provision. The awarding of a freight service operating from Puget Sound to the Orient to the American Mail Line instead of to the American Presidents Line, which had entered a higher bid (p. 180), is the sole evidence for this accusation. The acceptance of an unfavorable bid is always difficult to justify, and it is true that the Commission tried to explain its action on the basis of Sec. 809; but in the only other case where this issue arose (the awarding of the Pacific-Argentine-Brazil Line to Moore-McCormack Lines, Inc.), the Commission refused the lower bid entered by locally supported interests. It leaves the Commission with a divided record on this point, but more importantly, it suggests that there was probably another factor involved in awarding the Puget Sound-Orient Line to the low bidder; and that is the fact that the high bidder was almost entirely government-owned, and was controlled by the Maritime Commission itself. There have been numerous other instances where the Commission has leaned over backward to promote private investment in American shipping; and as this has been a consistent aspect of Commission policy, while localism has not, this appears as a more likely explanation of the Commission's action.

While it is true that the Commission did not effect a consolidation of American lines in the transpacific trades which would permit them to enjoy the greater flexibility of operation which Dr. Radius believes essential to the highest efficiency, it should be remembered that the Commission did promote such consolidations on almost all other trade routes. Why the Commission did not do so in the transpacific trades is an interesting subject for specula-

tion. The answer probably lies in the fact that the dominant American line in these trades, and the one about which a consolidation could most logically be arranged, is the government-owned and Commission-controlled American Presidents Line. Here again it appears that rationalization of the industry was impeded by the Commission's scrupulous observance of the policy of the 1936 act which required that the American Merchant Marine should be privately owned and operated in so far as might be practicable. It is to be regretted that Dr. Radius did not investigate this aspect of American shipping policy; because it might have led him to criticize the real issue which has long confused this country's merchant marine program, *i.e.*, the failure to reconcile the conflicting criteria arising from the dual rôle of shipping. Merchant shipping is of strategic as well as of commercial importance, and for this country the strategic importance far outweighs the commercial. For years commercial criteria have been applied to evaluate a shipping program which should have been judged in the light of strategic considerations. Once the industry's strategic importance is fully realized, the issue of government *versus* private ownership can be seen in its proper proportions.

Contrary to the validity of the author's first two policy suggestions his third, to subsidize American tramp carriers, is far more dubious. While this may be expedient during the post-war transition period, it is very questionable as a long-term program. It is quite true, as the author's statistics very clearly reveal, that the excess of bulky, low-value exports over imports from several of our coastal regions have made these trades attractive to foreign tramps; but it is quite another matter to subsidize American vessels with their high operating costs to compete where even the British have often found their wage rates too high. It would be very much more economical to place our "Liberty" ships in lay-up where they can be maintained as a strategic reserve for \$5000 per annum or less each—far less than it would cost to subsidize them as tramps. Some overseas operation of American vessels is necessary, but let us concentrate on fast liner services where our competitive disadvantage is not so great and leave the tramp services to those foreign countries who can perform them efficiently and most of whom need the opportunity to earn dollar exchange.

In addition to Dr. Radius's suggestions for policy, students of this subject will welcome the excellent statistical chapters in which he has shown the tremendous importance that the Japanese Merchant Marine had assumed in the transpacific trades during the period studied. He has shown also the increased participation of our Atlantic and Gulf Coast ports in our transpacific trades, and the relative decline in this traffic suffered by our Pacific ports. Although this trend had been manifest for some time, it does seem odd that no mention is made of the effect of the 1934 and 1936 Pacific Coast maritime strikes on this transition, in spite of the fact that the 1936 results are, for other completely satisfactory reasons, minutely analyzed in a separate chapter.

DANIEL MARX, JR.

Dartmouth College

Public Control of Business; Public Administration; National Defense and War

Demobilization of Wartime Economic Controls. By JOHN MAURICE CLARK.
Research stud. of the Committee for Econ. Development. (New York:
McGraw-Hill. 1945. Pp. xiii, 219. \$1.75.)

A surprising degree of unanimity of opinion on the "demobilization" of wartime controls has emerged in the past fifteen months. Professor Clark's sketch of the backtracking in which we are now engaged can arouse little opposition. When he prepared the first draft of his book, there was lively controversy and a deep uncertainty as to the kind of national problems we would encounter after V-E Day. Collapse of war spending and sharp unemployment pointed to deflation, in the minds of some; others saw a sudden release of buying power, labor shortage, and a strong push toward an inflationary spiral. A year later the atmosphere had cleared and we could foresee nothing so clear-cut and, we hoped, much less to worry about until V-J Day actually overtook us. Since then controversy has resurged.

Consequently, what we immediately desire from the author is a new edition aimed solely at the post-V-J Day uncertainties. It is disappointing to find that "the catching-up period will be adventurous and will probably be marked by vicissitudes" (p. 162). Most of Professor Clark's long-run suggestions are stimulating, e.g., the need for experimenting with new forms of wage payment (p. 175), the greater bargaining power and control over costs suggested for authorities in charge of future public works programs (p. 180). But the exploration of these is all too brief.

Two chapters are of particular value. Chapter V provides a succinct résumé of the control structure during wartime, on a broad front. Control of credit, transportation and export trade have been just as much a part of wartime planning as the direct regulation of production, prices and wages. Chapter VI offers a similar summary of the shifts in the control pattern after victory in Europe (though written before V-E Day actually occurred). The emphasis on shipping shortages, and the persisting manpower difficulties, has been justified by the actual events of the brief phase of the Japanese war. Continued rationing of consumers' durables and continuation of price control are both supported by the author. The general perspective in these two chapters is excellent.

Inevitably, the following chapters (VII, VIII, and IX), dealing with the actual reconversion period after the Japanese interlude, must tread on the areas staked out by other investigations sponsored by the Committee on Economic Development. The level of unemployment benefits, inflation control, wage policy, and positive efforts to attain full employment are all touched upon. There are extensive cross-references to other C.E.D. studies, already published or proposed. Perhaps the material presented in these chapters—and it is necessarily abbreviated—is best described as an appetizer aimed at sharpening the wits and wants of the C.E.D. audience. By such a standard, these chapters also are excellent.

Perhaps in a book designed to be one in a series, with a specific audience in mind, this shift of balance can be negotiated by a later author on the Committee for Economic Development's able team. The Committee can take credit for producing a sane and solid (the latter adjective in its slang usage) appraisal of the period which began in early 1944. It is thorough, and clearly differentiates the major trio of production, price and wage controls from the minor array—transportation, import-export, subsidy, contract termination, surplus property, and rationing. The government agencies entrusted with the job of choosing the alternatives in all these fields did their hardest work in the August-October period of 1944, when the threat of German collapse was a daily prod. The basic differences were resolved, in nearly all cases, in Professor Clark's favor. Congress has subsequently stepped in to resolve a surprising number of the issues or to approve tentative decisions reached by the various administrative agencies. It is unfortunate that Professor Clark could not point out this acceptance of legislative responsibility.

But the hardest part of the task is often not the basic policy choice. "Preparation for prompt reconversion and re-employment after fighting ends is the most important civilian need . . . more important than a few more consumer durables released a little sooner" is a dictum with which it is hard to quarrel. But to determine the best means of achieving that preparation, and whether two birds can't be killed with one stone, is not easy. Advice from industry is either too general and sketchy, or too narrowly detailed, to be of much help to government administrators. Professor Clark, having tangled with these middle-ground questions in earlier war years, is quick to concede their difficulty. He gives counsel of perfection in several places, by stressing the need for maintaining a high quality of war-agency personnel in the de-control period. He could have laid much more stress on the point that the placing of wartime powers in the hands of newly-created and specialized agencies results in a centrifugal force hastening the de-control process. The strength of this force has not been often realized; it is distressing to some groups not numbered in the audience to which Professor Clark's book is addressed.

SHAW LIVERMORE

Washington, D.C.

The History of the New Deal. By BASIL RAUCH. (New York: Creative Age Press. 1944. Pp. xi, 368. \$2.50.)

There was not one, but two New Deals, according to Rauch. The first was centered on recovery, and to this end employed conservative means borrowed in the main from President Hoover. The second, beginning in 1934 and brought to a close with the deepening of the world crisis in 1938, began with the failure of NRA, the AAA, and allied measures to eliminate unemployment, and thereafter employed many new and novel devices of a reform nature designed to promote recovery by shoring up the income of the underprivileged, on the one hand, and by curbing the depression-favoring practices of the vested interests, on the other. The second New Deal was no more suc-

cessful than the first in achieving prosperity, but it did result in a "massive body of domestic laws" able by 1944 to reflect Roosevelt for two additional terms: "the Tennessee Valley Authority Act, the Glass-Steagall Banking Act, the Gold Reserve Act, the Securities Exchange Act, the Reciprocity Trade Agreements Act, the National Labor Relations Act, the Wealth Tax Act, the Agricultural Adjustment Act, and the Fair Labor Standards Act" (pp. 339-340).

The first New Deal was characterized by (1) a general policy of appeasement of business, (2) specific legislation intended to give business—particularly big business—the leadership in pulling the country out of the depression through use of the formula of self-government in business under the NRA and AAA programs, (3) the naming of leading business figures such as Johnson, Peek, and Harriman, and conservative business sympathizers such as Moley and Richberg to leading emergency administrative posts, and (4) economic nationalism—capped by what appears to have been deliberate scuttling of the London Conference in 1933—abroad. It was an essentially conservative New Deal, and it was a well-nigh total failure. It did not bring recovery; it did not appease business; it did not satisfy farmers—most of the AAA payments having gone to big farmers and mortgage holders—and it was used to promote a national campaign of company unionism which nearly cost the administration its labor support.

Nevertheless, the Administration, Rauch continues, maintained its faith in the business system, private property, the "profit motive," and in the institutional paraphernalia appropriate to capitalism as a whole, and that simply because it held that the system of "free enterprise" was at bottom sound. But by 1934 the intransigence of business appeared as a rule-or-ruin affair, with the Liberty League leading the hounds. Caught between the no-compromise attitude of business and the rise of racketeering and crackpot movements such as those of Huey Long, Father Coughlin, and Townsend—able at any favorable juncture to roll up a mass-following should labor leave the Administration table—the President moved to save at once business against itself and himself from the reaction of popular disillusionment by resort to programs designed to promote mass purchasing power. Social Security, the WPA, special aid to housing, and the Labor Relations act traced the larger outlines of the new policies and set the pace. Scarcely under way, the whole program was nearly scuttled by a series of adverse Supreme Court decisions: the "Hot Oil" case, the Railroad Retirement act, the Humphrey resignation case, the Farm Bankruptcy act, the NRA, and several others falling to the judicial axe. Through the court reorganization proposal the Administration succeeded in forcing a change in both court interpretation and personnel, even though it lost the case before Congress. Thus secured from the rear, laws were redrafted to secure passage and approval without losing much of their original substance.

Two things stand out in retrospect. First, conservative interests—big business, the bourbon South, and the middle west farm *bloc*—never accepted the President, the New Deal, or the New Deal's leading supporters. Step by step, and at almost every turn, they fought the legislation or sought to control it

in such a way as to defeat every liberal feature in the original proposals. Sometimes—as in the case of NRA—they did both at the same time. Here the political genius of Roosevelt consisted in his ability to wring concession after concession out of Congress clearly dominated by these three groups. But he could not hold back indefinitely their slow union regardless of how effective he might be in appealing over their heads to the people. They might be given pause for a moment, but soon like Fabre's caterpillars they once again picked up the trail. Roosevelt was saved from impending defeat at the hands of Congress by the turn of international events which permitted—if, indeed, it did not make necessary—gradual abandonment of the domestic front, while his leadership in foreign affairs soon appeared so effective as once more to nullify the combinations opposed to him.

The shift resulted, in the second place, in bringing the domestic reform program to an end. With it the New Deal ended also. The “honeymoon” of the early thirties was followed by a second “honeymoon” of the late thirties and early forties. Both times the President's success was based upon the inability of Congress to oppose him openly or on principle so long as he held his tremendous popular following. And he held that popular following even though he had the press overwhelmingly against him, and despite the fact that the second New Deal did not bring the depression to an end nor set the sights to keep us out of war.

Rauch's *History of the New Deal* is well organized, readable, and interesting. It will appeal to lay and specialist readers alike. One rarely finds recent history so well put together. The author is a warm advocate of the New Deal. The material is intensely controversial. Yet he will offend the sensibilities of few readers. A few factual errors mar occasional pages, such as the statements that farmers made up 50 per cent of the population in 1929 (p. 8) and that 600 NRA codes were in operation by September of 1933 (p. 37). Yet such slips are few and far between and they detract but little from a workmanlike and useful survey.

ROBERT A. BRADY

*University of California
Berkeley*

Industrial Organization; Price and Production Policies; Business Methods

Small Business and Venture Capital: an Economic Program. By RUDOLPH H. WEISSMAN. (New York: Harper. 1945. Pp. xii, 174. \$2.00.)

The effusions about small business that are now emanating from so many quarters show a frequent tendency to personify the “little fellow” as economic virtue and to garb “big business” in the villain's rôle. This romanticism is reminiscent of magazine serials and the motion pictures in which the small cottage and the Park Avenue apartment symbolize opposite ends of the moral scale. As a means of creating a mood and disposition to action the device is

highly effective, as recent state and federal legislation amply demonstrate. But it falls short of establishing an economic case for the deliberate nurture of small business as a matter of policy.

The present volume (by a member of the staff of the Securities and Exchange Commission) here under review is not, as its title seems to suggest, confined to the problem of securing venture capital for small business. About one-half of it is concerned with the growing dominance of large firms in the American scene. And despite occasional lapses the discussion throughout is comparatively free from the rhetoric and romanticism referred to above.

After an introductory chapter which opens with "Now is the time for all good men, regardless of party, to come to the aid of small business," the next two chapters analyze the difficulties in obtaining capital for the initiation or expansion of small business enterprises. There is not much new material here but the existing data are conveniently, if somewhat uncritically, summarized. The long-recognized dilemma of how to combine safety to the provider of funds with full freedom to the user thereof is effectively posed by examining the relatively poor success of various schemes for making capital more readily available to small firms. After discussing other proposals the author proposes a quasi-public corporation tied into the Federal Reserve System but financed by the member banks through stock purchase. This corporation, which would have branches possessing a high degree of local autonomy, would have authority to purchase equities as well as make loans. Actually the proposed corporation whose full details cannot be reported here would also be a "service corporation" supplying engineering, management, and accounting services to its clients for a fee in a manner very like some of the best public utility holding companies dealt with their subsidiaries before the Public Utility Holding Company act of 1935.

The remainder of the book (Chapters V-VIII) is not directly concerned with the capital procurement problem in small businesses. It deals rather with ways and means of strengthening the general position of small business by a multilateral attack on the "monopoly problem" in contemporary America. Among the proposals discussed, both historically and to some extent analytically, are federal incorporation, incentive taxation to small firms, reform of the patent laws, etc. The book closes with a strong insistence upon the close connection between the preservation of small business and the maintenance of democracy.

As can be seen, this volume covers a lot of territory in 164 pages of text. It is by no means a definitive study of the economic aspects of the problems of small business firms. Even as a summary and interpretation of the findings to date, readers will find occasions for sharp disagreement. But as a survey to pose the problems of small business and as a digest of various proposals for their alleviation to be put in the hands of undergraduates or the general reader, the book has decided merits. And this was apparently the author's intention.

NORMAN S. BUCHANAN

*University of California
Berkeley*

Mining; Manufacturing; Construction

The Economics of the Pacific Coast Petroleum Industry. Part I: Market Structure. By JOE S. BAIN. (Berkeley and Los Angeles: Univ. of California Press. 1944. Pp. xiii, 221. \$2.75.)

It is difficult to make a fair appraisal at this time of the investigation upon which Professor Bain has embarked because it is not yet complete and the presumably most useful parts of it are yet to come. The entire study, of which this volume is the first part, is an examination of the influence of structural aspects of a particular market upon price policy and business behavior, and the consequence of such policy and behavior in relation to public welfare and to public policy. Part I, which is the volume under review, purports to be primarily a description of the market structure of the Pacific Coast petroleum industry with some advance indication of those objective circumstances and business relationships most likely to be influential in shaping the pattern of industry policy and behavior. Part II will embody the analysis of price, output, fluctuations in rate of operation, forms and degrees of competition and other market results which, in fact, constitute the sum total of business behavior. Finally, Part III will investigate the bearing of this behavior upon the economy generally and will explore the problems of public policy arising out of such market results.

Under this organization of material it would be remarkable indeed if Part I turned out to be anything more than a listing of technical facts and institutional arrangements. While Professor Bain has done on the whole an excellent job of assembling a mass of factual material (which no doubt will prove valuable to investigators of particular phenomena related to the detailed operations of the Pacific Coast petroleum industry), the book as a whole necessarily leaves the reader frustrated over the lack of analytical treatment. This frustration is aggravated by Bain's persistent disposition, after initiating analytical inquiries, to drop them with an observation that the significance of the phenomena described will be explored in Part II of the study. (For instance, toward the end of Chapter V the author embarks cautiously upon an exploration of the fairly obvious possibility that the technical superiority and versatility of certain types of refinery equipment possessed only by the larger companies may result in cost advantages; he then drops the subject with a notation that "all of these aspects of the market structure, as reflected in unascertained differences in cost, presumably exercise some influence on the character of market behavior." This is typical.)

The entire study as planned is predicated upon a conviction that the trouble with contemporary price and market analysis is a tendency to be satisfied either with the sterile and unreal findings of purely theoretical oligopoly analysis, on the one hand, or with the endless accumulation of unrelated facts after the (alleged) manner of the pure institutionalists, on the other. Professor Bain believes that the proper middle course is to assemble, interpret, and correlate the objective facts of the market situation for a particular product, but to do so selectively on a basis of rejecting facts which

cannot be helpful in explaining "market results" and including many kinds of facts which are embodied only by implication, if at all, in the generalizations of theoretical analysis.

This is a method which has had some vogue in recent years and promises to have more widespread vogue. Professor Bain's note on methodology gives the impression that he regards this method as different in kind from either theoretical or institutional analysis and as a substitute for both. If the method is so regarded, serious questions present themselves about its practicability. The fundamental weakness in an analytical method which requires exhaustive investigation and cataloging of the minutiae of environmental and institutional circumstances is that the kinetic rate of environmental change is probably much higher than the rate of research performance which can reasonably be expected to be attained.

If, however, the method is regarded as supplemental to the contributions of theoretical and mathematical analysis (that is to say, as throwing light upon the hidden assumptions and incomplete coverage of pure theory) and as a refinement of the indiscriminate descriptive tendencies of pure institutional analysis, it is a method which can contribute materially to the understanding of price and market relationships. So understood, however, the method might appropriately be employed with less persistent attention to detail and with greater emphasis upon the selection of environmental circumstances having a major impact upon the pricing process than Professor Bain has employed in the volume under review. For instance, a useful if not so complete description of the market structure of the entire petroleum industry world-wide could be developed in a volume that would not exceed in size Part I of Bain's work and which would contribute much more toward the understanding of market phenomena.

Apart from the foregoing general observations on method, I have the following comments on the particular manner in which Bain has applied his method.

(1) An examination of the market structure of a particular industry in a geographically limited area cannot be satisfactorily undertaken without an extensive knowledge of the problems and structure of that industry generally. There is some evidence in the present case that the author's familiarity with the petroleum industry outside of the Pacific Coast area is limited. For instance, he comments (p. 13) on the independence and uniqueness of price phenomena in the United States petroleum market in a manner which suggests that he is not aware of the real relationship between United States prices and world prices. Similarly, he notes that "the largest American refiners have numerous foreign subsidiaries in both production and refining" (although in a footnote listing these American companies he omits the two largest and most important); but goes on to state incorrectly that "these connections do not affect a very large proportion of the production in the 'foreign' area"—although American companies controlled as of 1940, the year covered by most of Bain's statistical data, some 36½ per cent of petroleum production outside the continental United States. He apparently has overlooked the significance of the Mexican trade agreement with respect to the tariff, import and quota

position of the United States. He states that "tank ship rates from the Gulf Coast via the Canal are as much as two cents per gallon (about 25 per cent of the refinery wholesale value of gasoline)" (p. 16)—which implies that eight cents per gallon is the normal average refinery wholesale price for gasoline, whereas in fact the annual average price at Gulf Coast bulk stations (the standard pricing basis) has not exceeded six cents per gallon in the past fourteen years.

(2) It is difficult to see how the exhaustive cataloging of particular facts about buyers and sellers in a market can be considered to constitute a description of a market structure if significant background factors in the industrial economy of which that market is a part are described inadequately or not at all. This deficiency of Professor Bain's treatment is particularly noticeable with respect to the applicability and the *de facto* application of the antitrust laws to Pacific Coast marketing practices. The author's excessive caution about antitrust matters is evidenced particularly by his disposition to regard as dubious those allegations or indictments to which the oil companies have entered a plea of *nolo contendere*. The implications of a plea of *nolo* in behalf of a corporate defendant should be obvious to the sophisticated.

Similarly the treatment accorded to the general issue of conservation with respect to petroleum is jejune. The complex theoretical considerations involved in the question of petroleum conservation, the admixture of engineering and economic concepts entertained by oil company executives, the sketchy and imperfect conceptions entertained by state officials, and the mechanisms of proration and schedule production, adopted with or without public sanction, are all integral and extremely important parts of the background and environment of oil industry operations. They deserve much more extended treatment than some of the trivia to which Bain addresses himself; for instance, the differential qualities and gravities of crude (which, of course, cancel themselves out in a market where buyers are informed as to specifications), and the relative productivity of fields (which has almost no economic significance whatever since a "field" is a geologic, rather than an economic, generalization).

(3) Although Professor Bain has collected a large potpourri of numerical data on production, refining, transportation, price, number of firms in various segments of the industry, and the like, the treatment which he has given to the data consists largely if not entirely of simple tabular presentation not well oriented toward the demonstration of trends or significant relationships.

(4) The quality of the economic analysis cannot, as has been said before, be fairly appraised since the author repeatedly asserts that he will get down to the real analysis when he writes Part II. Nevertheless, the analytical treatment is conspicuously inadequate with respect to (a) the significance of transport facilities, control of which by a relatively small number of large companies is, both nation-wide and in the West Coast area, a determining consideration with respect to price patterns in the crude and products markets for petroleum; (b) the significance of anticipated costs and revenue expectations in crude petroleum production (the statement on page 42 that

"neither the long-run nor the short-run costs of oil production are very closely related to its price" being indefensible); and (c) the significance of product differentiation (which receives quite superficial treatment in the discussion of retail marketing where it is important, and which is explained away in the discussion of the crude petroleum trade by a statement that it will not influence the general level of crude prices because "quality differences are precisely reducible to price terms"—when, as a matter of fact, this statement is equally valid of quality differences in petroleum products, the distinction being that the buyers of crude buy on specifications, whereas the buyers of products, particularly gasoline, buy on the basis of impulses created in part by advertising effort.)

In summary, those who have survived a reading of Part I will look forward with anxiety to the publication of Parts II and III, in the hope that some more orderly pattern will emerge.

JOHN A. LOFTUS

- Washington, D. C.

Agriculture; Forestry; Fisheries

A Guide to Wheat Studies of the Food Research Institute—Wheat in the World Economy. By J. S. DAVIS, HELEN M. GIBBS and ELIZABETH BRAND TAYLOR. (Stanford University, Calif.: Food Research Inst. 1945. Pp. vii, 222. \$2.00.)

This guide is in three parts. Part I consists of half-page abstracts of the 180 studies in the 20 volumes of *Wheat Studies*; Part II, of a reprinting of the tables of contents of the 20 volumes, a listing of the separate articles by authors, and a listing of the "Special Studies" by subjects; and Part III, of 107 pages of composite indexing of the 20 volumes of *Wheat Studies*. Dr. Davis designates two purposes of this guide: one, to help readers "find with ease the data on and discussions of numerous specific matters"; the second, to "open this mine of information to others who have not hitherto seen or used *Wheat Studies* and who are aware of no interest in wheat as such." To those who know the meticulous care with which the Food Research Institute makes and edits its studies, no assurance is needed that the abstracting and indexing has been carefully and conscientiously done, and that this guide will be of great help to those who have or acquire an interest in wheat.

Of more interest to the general economist is the meaning of this twenty-year effort. Dr. Davis realizes this. "Indeed," he writes, "the effort that has gone into them is justified partly by the fact that the Institute has taken wheat as the social-science equivalent of the white rat, the guinea pig, and the fruit fly in research in the natural sciences." Interesting also is the effect which such a high degree of concentration may have had on the minds and mental habits of the Food Research Institute's "slowly changing group of cooperating scholars." Fifteen years ago, for example, it led one of them, Dr. Holbrook Working, to take the position, in a paper read before the

International Conference of Agricultural Economists, that there is little use talking about a general theory of commodity prices, that what we must have is a theory of wheat prices, a theory of steel prices and so forth.

JOHN D. BLACK

Harvard University

World Wheat Production: Its Regional Fluctuations and Interregional Correlations. By V. P. TIMOSHENKO. (Stanford University, Calif.: Food Research Inst. 1942; 1944. Pp. 48, 52, 48. \$2.00.)

This study was financed by a grant to the Food Research Institute from the Rockefeller Foundation, and reported in *Wheat Studies* of the Food Research Institute, Volume XVIII, No. 7, Volume XIX, No. 5, and Volume XX, No. 6. The Food Research Institute is rich in accumulated data and experienced analysts for undertaking such a study.

The study was designed for students of (1) the world wheat market, (2) fluctuations in agricultural production, and (3) general economic fluctuations or business cycles. Students of the world wheat market will find this a very valuable study. For them, the most significant conclusions arrived at from the study are (1) that fluctuations in wheat yields and output are "dominated more by random factors than by systematic ones"; (2) that there are no significant correlations in variations in yields and output among remote regions; and (3) the diversity in variations in yields and output results in a stabilization of production in the world.

The study of the yields and output of other crops leads to conclusions that they fluctuate similarly to wheat. The data as to other crops are not very extensive. Undoubtedly many of the characteristics of wheat production carry over into the production of other crops. In many areas, however, wheat is not representative of the total agricultural production. For example, in tropical areas wheat production is quite unimportant, and would not be representative of crop production to any significant extent. The only satisfactory approach to a study of fluctuations in agricultural production in general would be to construct indices of production comprehensive enough to include all significant volumes of production for the several states or regions.

Students of the relation between crop production and general economic fluctuations or business cycles will find in this study much of great interest. Significant conclusions are that (1) fluctuations in business appear less random than crop yields, and (2) great variations in crops in some leading export countries may contribute to fluctuations in the world's business. The student who expects definite answers or final conclusions which will make further investigations unnecessary in this field will be disappointed. Doubtless some readers of the report will find in it confirmation of their predilections that there is no foundation for the assumption that cycles in crop production result in business cycles. Those who are inclined to doubt the existence of business cycles may find some support in this document for skepticism also on this point. Some students who are confident in their own opinion that the economic world is dominated by cycles originating in weather

cycles transmitted through crop production to the national or international economy are likely to continue to think that such an hypothesis has not been disproved by this study. Doubtless they will make further excursions over the same ground with some modifications in technique and some additional data—if any can be found—and arrive at conclusions of longer-time cycles and of more definite short-time cycles stated at least more confidently than are the conclusions registered in this study.

The reviewer does not consider that the lack of finality on many points in this study condemns it. It is very useful. It will save many from fruitless speculation and fruitless attempts at analyzing the problems. Some, on the other hand, who will not be willing to let the matter rest at this point, will use this analysis as a starting point from which to depart or go on.

It is a little surprising that the author did not examine the effect of economic factors upon yield and output. Prices, the combinations with other crops, and the stage of economic development in a country are also factors in determining the yields and output of wheat and other crops.

Not the least important feature of the study is the statistical technique applied to distinguish between random and systematic variations, and also in the measurement of variability and in the determination of cycles. On this account, the study will be a useful reference in considering the application of statistical technique to such problems.

O. C. STINE

Washington, D. C.

Economic Geography; Regional Planning; Urban Land; Housing

Compass of the World. By HANS W. WEIGERT and VILHJALMUR STEFANSSON.
(New York: Macmillan. 1944. Pp. xvi, 466. \$3.50.)

This collection of essays by twenty-eight authors, including several geographers, economists, population experts, and an authority on international law, is designed to show the relevance of new geographical facts and principles to American post-war policies. In their Introduction, the editors explicitly reject the ethical implications of German geopolitics. The professional interests of most of the authors, however, naturally induce them to stress environmental factors, climate, resources, and particularly location in relation to oceans and land masses in explaining the past and in predicting the future of nations. Griffith Taylor, for example, in "Canada's Role in Geopolitics" with the aid of maps, some of which to a layman look surrealistic, finds in Canada's position as a central area in a group of lands with European culture indication of a large position in world affairs. Father Walsh and President Bowman, however, take up the cudgels against the mumbo-jumbo and pseudo-scientific use of statistical and cartographic techniques with which the geopoliticians have bolstered their dogmatic predictions of the inevitable course of history.

Quincy Wright in two essays, "The Balance of Power" and "Population Trends and International Relations," emphasizes institutional and ideological factors in international relations. Eugene Staley in "The Myth of the Continents" effectively demolishes the fallacy that the situation of two nations of differing cultures and traditions at the opposite ends of a continuous land mass, such as that formed by North and South America, constitutes a logical basis for political regionalism.

Owen Lattimore's "The Inland Crossroads of Asia" presents a remarkable synthesis of geography and history which illuminates the political situation in the twilight zone of dubious sovereignty along the Russo-Chinese frontier.

Air transport's revolutionary effect on geographical thinking is brought out in a group of essays by William A. M. Burden and other experts. They show how, after a lapse of 400 years, the fact that the world is round has again become a dominant consideration in international relations. Much less hampered by topography than the railroad or the steamship, the airplane, using great circular routes, brings into much closer relations countries like China and the United States, which, according to Mercator's chart, were at the opposite ends of the earth. Air transport is the leading motif in eight essays grouped under the heading "The Northward Course of Aviation." They present a wealth of descriptive material showing how new technical developments, especially rapid transport by air, have promoted the exploitation and settlement of the territories surrounding the Arctic Ocean, Alaska, Canada, and Siberia.

This symposium has the defects of all such collections. It is spotty and frustrating to the reader who is seeking for systematic development of ideas. Also for a book on political geography the scarcity of maps and the bad appearance of some that are presented are rather strong defects. The editors, however, are to be congratulated on their good judgment in selecting and arranging their material.

PERCY W. BIDWELL

Council on Foreign Relations

Home Ownership: Is It Sound? JOHN P. DEAN. (New York: Harper. 1945. Pp. xiv, 215. \$2.50.)

The title of this book may be misleading. The author is not attacking home ownership as such. Rather he "accepts the advantages of home ownership *where they exist*" (italics mine), although according to Dr. Dean they exist in but relatively few cases. Therefore he is concerned with the vast number of cases in which home ownership is not feasible and more especially is he concerned over the almost universal acceptance of home ownership as the goal for virtually all families in the housing market. The necessity for bearing these facts in mind becomes increasingly urgent as the evidence piles up to show the pitfalls, the complexities, and the magnitude of the maladjustments that may flow from unwise ventures into the realm of home ownership by unwary purchasers. The literature on privately financed housing has been almost exclusively on the side of building up the case for home ownership, and Dr. Dean

here seeks to "equalize the balance by presenting the too little discussed difficulties that arise."

The book is timely, coming as it does when the housing shortage is forcing home ownership on many as the only means of meeting their present, urgent shelter needs and also when the country is apparently on the verge of a vast housing boom which the organized real estate business will attempt to channel, to the maximum extent possible, into owned homes. At this point a question arises as to whether the book will reach the mass market—those most likely to benefit from it. There is no organized group to take this book and do with it what the "private enterprise boys" of various stripes have done with *The Road to Serfdom*.

The author assays a difficult and unpopular task in scrutinizing an institution so long established, so deep seated, and so widely accepted as a principle or ideal of the so-called American way of life. Enthusiasm for home ownership—or at least equal opportunity for home ownership—amounts almost to a religion in this country. At least, it has all the sanctity of a time-honored custom, than which there is nothing more difficult to appraise impartially, particularly if that appraisal results in casting any doubt on the validity of its universal applicability. On the other hand, no stigma attaches to using or exploiting such a creed for personal gain. Play upon the sanctity of the home and the spiritual and moral, not to mention social, values it is said to foster and stimulate is the means of "softening up" many a prospective purchaser whose long-run economic and social ends may (but in many cases may not, according to the author) be served by ownership of a home of his own.

Perhaps the most important contribution of Dr. Dean's book is the evidence he assembles to show the interrelation, in fact, the confusion between home ownership as a means of meeting the need for shelter and the satisfaction of other less tangible wants at the same time. Costs which are incurred for the satisfaction of shelter needs are one thing and costs incurred for satisfaction of other desires are another. Recognition of these two distinct elements in home purchase and forthright evaluation of the costs that each entails would inject a realism into the home ownership picture that has been conspicuously lacking. Such realism probably would curtail the volume of houses sold and perhaps even the number built, but in the long run it should make for a more stable market which would be a net gain to all parties to the transaction and to all elements of the housebuilding industry.

This approach to the subject sets the general character of Dr. Dean's treatment, which is more sociological than economic, although the book contains a wealth of economic data. In both fields, however, factual data are fragmentary, although the author has made the most of the facts and opinions available. Perhaps too much reliance is placed on opinion polls, with all their susceptibility to variety of interpretation both by the interviewee and by the analyst. On the other hand, cold facts about attitudes are hard to come by and this lack must be recognized and the best available substitutes used in the interim.

On the economic side of the picture, home ownership has long been regarded as a more or less riskless investment, or even if somewhat risky, then at least

worth the risk. Dr. Dean asks not only whether it is really riskless but also whether it is an investment. He piles the evidence high in the negative. This evidence is not new to economists, and especially to land economists, but neither of those species is a potent force in the market, either as an "influence" or as potential purchasers. But many are the would-be buyers who think of an owned home as an investment and to whom the transaction appears deceptively simple. They do not understand the cost of debt service; the incidental fees attaching to the purchase transaction; the possibility of special assessments; the necessity for precalculation, at least roughly, of allowances for repairs and maintenance, depreciation, and obsolescence—not to mention all the risks that may threaten that investment as a result of the rapidly changing neighborhood or community scene which is characteristic of American urban centers.

Perhaps a major lack of the book is too little attention to the other side of the picture—the alternative to home ownership, namely, rental housing. Why is it so unpopular that families in such large numbers express a desire to escape from it? What can be done to make it more popular? Why is rental housing more or less synonymous with multi-family living? Is home ownership the only means of achieving more space, more privacy, more individuality, and more of the amenities of living generally? Until some of these questions are answered satisfactorily, warnings about the pitfalls of home ownership are a voice in the wilderness. But if such analyses as those of Dr. Dean can stimulate some constructive thought and action on these problems, the voice will not have been raised in vain.

The author's own proposals are more in the nature of some suggestions for stop-gaps that might help to stem the high tide of the home ownership movement which he sees rising in the immediate post-war period. These "institutional protections" fall into three categories: (1) discouragement of "those who cannot wisely buy" by insisting on more careful scrutiny of the purchaser's ability to buy, by establishing an unbiased counseling agency, and by stimulating a rental housing program; (2) protection of those who do buy by providing an impartial appraisal agency, by getting more flexibility into mortgage contracts, by lowering interest rates, and by stimulating comprehensive local planning; and (3) by providing some machinery, perhaps a housing exchange, which will make possible more orderly disposition in cases of families that are forced to leave or give up their homes.

HELEN C. MONCHOW

Washington, D. C.

The Cotton Textile Industry of Fall River, Massachusetts: A Study of Industrial Localization. By THOMAS RUSSELL SMITH. (New York: King's Crown Press. 1944. Pp. xii, 175. \$2.00.)

This monograph provides the first comprehensive presentation of the available data on Fall River, Massachusetts, from its rise during the first fifteen years of the nineteenth century to its decline as a textile center in the last twenty-five years. The study is the work of a geographer who is concerned

with the economic problems of industrial localization. It is an able piece of work.

Perhaps its chief shortcoming for the economic historian will be that it contains less than 60,000 words on a subject which might well have been considered profitably at a length of 200,000. But it does not set out to be an economic history, although its form is chronological.

Chapter I focuses primarily upon the town of Fall River within the setting of the Lower Taunton Valley. Here the geographer is especially at home, and the shift from small ship building, local commerce and side-hill farming on the "thin, rocky glacial till overlying the hard granite" of these slopes is well recorded. This shift to the manufacture of bog iron and the use of waterpower for milling grain preceded the use of the stream to turn cotton spindles. The small fortunes made in these pursuits founded the textile factories of the next generation.

The author traces the transfer of managerial and technical ability as it moves across from the Blackstone River and its Rhode Island origins from Slater's early beginnings. He emphasizes the rôle of the power loom, after 1814, in carrying mills to the larger water power sites. He shows how, after weaving technique caught up with spinning, and power weaving and power spinning could be carried on in the same plant, "economies of large-scale production" were made possible "which called for larger plants, more capital, and increased specialization in production and marketing. Joint stock companies became the prevailing type of organization and the production of textile machinery started to develop as a separate industry."

All of these developments quickly emerged in Fall River, and water power was adequate to carry the town to a population of 9000 in 1845 from a village of less than 100 in the year 1800. Thus Fall River, like a few other coastal commercial centers, successfully shifted to industry, thanks to the capital, entrepreneurial ability, and mechanical skills developed in its vicinity during the commercial period.

The author here suggests, but does not develop, the factors which enabled Fall River capitalists to establish "the tradition of resident ownership, control, and management which characterized Fall River's industry at least until the end of the century." He indicates how the size of the water power made it small enough for development by local capital, and too small to attract the attention of Boston capitalists, otherwise occupied with upper New England and the Connecticut River.

In Chapter II, Mr. Smith portrays "The Emergence of the Industrial City," with special emphasis on the rise of the steam-driven textile mill. The sub-headings in this chapter indicate the range. They cover the competitive position of steam and water power for cotton mills; improvement of steam engines for textile mills; dates at which Fall River employed steam; effects of the Civil War; the post-war booms; the dominance of textile mills and related industries in the city, including textile machine shops and finishing plants, especially print works. This chapter also considers the locational advantages of Fall River and southeastern New England. These included transportation costs on coal and cotton, climatic conditions, and proximity to cloth markets.

The author attempts to evaluate the locational advantage, and concludes that, while savings in relation to total costs were probably not very significant, they were perhaps important in relation to "*that portion of total costs which varies in response to location.*" Thus, by eliminating the "85 percent of the total cost of print cloth production which showed little tendency to vary due to locational influences within New England," Mr. Smith arrives at the 10 or 12 per cent segment variable within New England. He concludes that this was sufficient to attract an increasing proportion of the *additions* to the industry's capacity, toward southeastern New England. He believes that this advantage was short-lived, reaching its peak in the years of rapid expansion after the Civil War, and "increasingly academic" in the face of Southern competition during the 1890's.

This chapter concludes with consideration of the development of the industrial city, in contrast to the factory town. Here the real-estate boom and the rise of new commercial fortunes based upon trade in cotton, coal and mill findings are emphasized.

In Chapter III, the author presents the story of interregional competition in the print cloth industry, with an account of "Fall River and the South, 1875-1914." Here he traces the trajectory of the city from its position in 1875, when it "was unquestionably the leading textile manufacturing center in the country," to that time a half-century later, when it was on the verge of its widely-publicized collapse. The chapter deals with the rise of competitive productive capacity in the South, the marked technological advance implicit in the perfection of high speed ring spinning in the 1870's and the success of the automatic loom after 1895 as these developments affected the print cloth industry and Fall River.

The rise of print cloth production in the South is treated in detail, by comparison with Fall River and New England. Stress is laid on the Southern advantage in labor costs, compounded of untapped labor supplies, non-competitive wage rates, less stringent labor legislation, insignificant textile unionism. Comparative technological advances and the diversification of product are statistically displayed.

In many respects Chapter III is the most tantalizing and perhaps disappointing in the monograph. By approaching the subject as a geographer interested in locational economics, the author grasps but does not hold firmly to the rôle of entrepreneurship and the part played by social changes within the communities, North and South, here being compared. He correctly points to "the complacency of management lulled by the past success of traditional ways of doing business, by the opportunity to make more money 'speculating' in cotton, and by its close relationship to local textile machine companies." To these factors he attributes their failure to adopt the Northrop loom as an essential part of modern cotton industry. He quotes M.D.C. Crawford as writing "So the Draper loom looked toward the South and began to build the present Southern cotton industry." But he does not develop this idea in terms of the rise of Southern cotton towns.

This chapter does not adequately consider, perhaps because of the great difficulty of getting at such data, the important question of the rôle of capitali-

zation in encouraging the installation of new machinery in the South and preventing it in the North. In this respect as in so many others, the Fall River entrepreneurs had lost their flexibility.

Chapter IV opens with discussion of the statistical highlights on the collapse of the 1920's. Mr. Smith then analyzes the characteristics of the liquidating corporations, in contrast with those which survived. He finds "no common characteristic that provides a glib explanation for the failure of the twenty-six corporations to meet Southern competition." He suggests that a "policy of little re-investment and high dividends in anticipation of ultimate liquidation while some equity remained was widely considered to have been in the best interests of the stockholders." He does not elaborate upon the effects of this policy upon the community.

In dealing with the surviving mills, he explains that "Fall River's textile industry has by no means disappeared. The city remains the leading textile center in New England and, although no longer a one-industry town, textiles are the largest single industry and provide employment for about one-half of the labor force." To accomplish this the industry had to change its type of product (in 1940 no print cloth was produced in Fall River), bring in outside management, improve its mechanical efficiency, and benefit from certain external factors such as the narrowing wage differential between North and South.

As to prospects for the industry in Fall River, the author forecasts that the war, which has brought back coarser goods in many mills, will require further adjustments, which the manufacturers may be unwilling to undertake. It is not clear where Fall River, and especially its textile industry, goes from here.

ROBERT K. LAMB

Washington, D. C.

Miami: Economic Pattern of a Resort Area. By REINHOLD PAUL WOLFF. (Coral Gables: Univ. of Miami. 1945. Pp. 171.)

This publication, as is explained in a Preface, grew out of a series of studies undertaken by Professor Wolff in connection with the work of the Post-War Planning Commission at the University of Miami. These studies aimed at supplying background material for the economic and sociological planning of the Greater Miami area. A committee formed by the Chamber of Commerce has laid the foundation for the planning work which at present is performed by the Dade County Coordinating and Planning Committee and on whose staff the author serves as a research economist. The present study was undertaken because it was felt that the proper planning of this rapidly growing community is predicated on the exact knowledge of the economic structure of a resort area. The Miami Chamber of Commerce assisted with the publication costs.

This study passes over in comparative silence the glorious nonsense that circulated in Miami in the early 1920's and the incredible headache that followed the collapse of the Florida boom. Dr. Wolff keeps his eyes on the

present and the future and gives us a sober, competent and, as far as I can judge, a reliable analysis of Miami's assets and prospects. In some 130 pages of text interlarded with short tables and pictographs, we are given a picture of South Florida natural resources; the past, present and future of the city's major asset—the tourist trade; its retail, wholesale and foreign trade; its present industries, and their prospects; and finally an account of the city's income structure.

The author deplores tax exemptions and industrial subsidies, advocates land use planning to protect the amenities on which a resort community depends so heavily, notes signs of another land boom and suggests the use, if necessary, of the taxing power and the right of eminent domain to prevent a recurrence of 1926 happenings.

The text is followed by 25 pages of statistical tables. The last two lines of page 119 should be transposed.

JOHN V. VAN SICKLE

Vanderbilt University

Labor and Industrial Relations

Union Policy and Incentive Wage Methods. By VAN DUSEN KENNEDY. (New York: Columbia Univ. Press. 1945. Pp. 260. \$3.00.)

It is quite generally known that trade unions have manifested much resistance to piece work and bonus wage plans. Not a few critics consider this hostile attitude one of the major vices of the labor movement. Another commonplace is that controversies between capital and labor often stem from technical changes and from the problems of work loads and wage payment thus created. Here, it is said, are two lines of evidence leading to the conclusion that unionism is inherently opposed to industrial efficiency. Only blind partisans on the respective sides, of course, believe these indictments are wholly true or false with respect to the vast aggregation of bargaining units and subsidiary groups within which "the labor movement" operates.

Dr. Kennedy has had splendid opportunities for collecting and sifting relevant evidence on these matters. He assisted in the studies of union agreements and practices concerning wage incentive plans which led to various brief publications by the Bureau of Labor Statistics; and for more than the year preceding completion of this book he was head of the automotive staff of the Detroit Regional War Labor Board.

An over-all view may begin by reference to the large preceding literature dealing in one way or another with reciprocal relations between unions and wage methods. The Webbs, for instance, in the 1890's showed that those unions which either tolerated or insisted upon piece work contained a majority of all union members in Britain. In 1908 McCabe found rather more acceptance than active opposition among American unions, but the storm over fancy bonus plans and other features of management engineering was fast blowing up and presently was written up trenchantly by Hoxie. More recently, there have appeared a number of studies of labor relations and

industrial welfare and psychology in relation to technology; but usually problems of incentive pay and work loads are treated rather incidentally.

Kennedy, supplying the first extended research in his field since McCabe's, does not offer any especially novel or challenging thesis; nor does he work over much of the older literature above mentioned nor attempt otherwise to deal with foreign experience or theory. His principal materials are recent union agreements and other labor literature, supplemented by forty or more anonymous "case situations," gathered in his field work for the Bureau of Labor Statistics. The discussion pertains mainly to about a dozen manufacturing industries, including some with traditions of piece work and widely employed (e.g., shoes, textiles, glass, garments) and some among the mass-producing industries recently organized by the Congress of Industrial Organizations, such as electrical equipment, rubber, automobiles and parts. The author endeavors to indicate the managerial as well as the labor side of many of the controversies examined (but perhaps some of the statements given in the "case situations" should be more plainly labeled *ex parte*). He offers no quantitative measurements, or even summary judgment as to long-term trends.

With these general characteristics in mind, let us notice some details. Naturally, much attention is given to management engineering and time study in relation to wage plans. Our author considers Hoxie's classic statement of fundamental incompatibility between dynamism in scientific management and static tendencies in organized labor to be still largely valid, and undoubtedly much of Hoxie's argument, though derived from American Federation of Labor craft unions, makes sense today even with reference to many CIO industrial unions. There are, however, important differences in traditions among union groups, including the Brotherhoods and other independents. Many of these differences are very well brought out by Kennedy, but I think his book needs supplementing by further explorations in the directions thus suggested. He rightly emphasizes, besides the acceleration of tempo of industrial changes, the continuing tug of war between old-fashioned "horse-trading" or *ad hoc* bargaining over each new piece rate or production standard, and the newer time study procedures which continue to gain ground despite (and in some cases because of) the great gains in labor organization of the last decade.

A significant chapter is entitled "Extent and Nature of Union Participation." Union demands for "control" make many people jittery, but in practice they usually boil down to demands for a grievance procedure which gives union officials access to the data on which any disputed standard is based. Kennedy emphasizes the social values of more thorough-going joint determinations, and he cites various situations in which joint action appears to have shown sustained success. Some joint engineering plans have gone on the rocks, but business agents and other central union officials, especially in industries with long and widely established piece work, have collaborated with managements to an impressive extent in initial determinations of new and revised piece rates. Apparently these cases are apt to be found where horse-trading bargaining is more prominent than elaborate time studies. When

elected local union officials try participation in standards determination by time studies they are apt soon to prefer the rôle of critics of management-promulgated rates to fuller partnership in the less popular function of task-master. Recent trends discussed by Kennedy include training of various union representatives in time study and other aspects of management engineering, and resorts to umpires. (Arbitration, however, is substantially more difficult to apply to disputes involving elaborate time studies than to most other grievances.)

Another chapter deals with restriction of output and the impact of the present war—including the encouragement given by government agencies, in many cases, to incentive payments in the effort to combat the manpower shortage and to assist workers to increase earnings. Unionists have tended to show increased hospitality toward incentives; some of them, perhaps, influenced by the enormous rôle of payment by results in Soviet industry, but mostly because incentive workers in general have made greater wage gains during wartime than have day workers. We have, in War Labor Board records, a comprehensive if inconclusive barometer of installation of incentive plans—and it should be observed that, if there is a union bargaining for the workers, WLB requires its approval for the adoption of such a plan. Hasty applications of incentive pay and the temptation to circumvent wage stabilization or otherwise to accede to union pressure, created some serious problems of “runaway” earnings and cutbacks. With all their drawbacks, government controls have provided much sound research and development on incentive pay, and Kennedy’s thumbnail sketch of the first year or two of such controls is of great value by reason of his experience in their operation, added to his previous studies. He remarks (p. 109) that in most of the plants he investigated there seemed to be “some degree of restriction,” signifying in each case that the incentive plan was not entirely successful. He shows, however, the difficulties in the way of defining and measuring restriction, and he admits he has not much basis for comparing the productive efforts developed in incentive-pay situations with those developed in analogous groups of day workers.

The final chapter gives a considerable number of union contract clauses, each identified, with Kennedy’s comments as to the major objectives and procedures which they illustrate. To many readers this timely contribution to our knowledge of the mechanics of a major sub-assembly in collective bargaining will be the most valuable feature of the book.

As intimated above, our author is chary of sweeping conclusions or delineation of trends. Reliable evidence is indeed scarce, on the question whether there is any long upward or downward trend in union acceptance of incentive payment, especially in view of the youth of unions accounting for perhaps half of the union members. There was a striking abandonment of unwieldy group bonus plans in the automobile industry, about 1936, as organizers capitalized on discontent with these plans; but this incident should not be generalized too far. Production standards have continued to be set in these plants on the basis of time studies, and controversies over such standards have many of the characteristics of the older incentive disputes in the same industry. There

must inevitably be some combination of piece work and day work principles, and managerial as well as other personnel are predisposed to favor systems to which they have been long accustomed. A satisfactory incentive wage system must make adequate provision for the worker's desire for guarantees of hourly earnings, understandable computations of earnings, fair pay for extra effort (including protection against speed-ups), and for protection against unemployment. Both managements and unions have accumulated much experience in conflict as well as in coöperation over incentive pay. For some years "day work" has increasingly tended toward "measured day work," i.e., assured and steady hourly rates paid for tasks set by relatively systematic studies. Kennedy's book supplies a wealth of up-to-date material, and of incisive analysis, upon the fundamental problems of task determination and also on the accompanying problems of relating the pay-off to the task.

Z. C. DICKINSON

University of Michigan

The Headwear Workers. By CHARLES E. GREEN. (New York: United Hatters, Cap, and Millinery Workers Internat. Union. 1944. Pp. 269. \$2.00.)

According to the blurb on the jacket of the book, this history of unionism in the headwear industry was written by a man who spent ten years as a labor reporter and another nine as an official of the union. And from this fact stems the major virtues and deficiencies of the book. It is a well-organized and well-written history of a century and a quarter's struggle to organize and to establish union conditions in an industry which tended to be "sweated." Too much of the book, however, is devoted to a description of the day-to-day problems of the union itself; too little to analysis and interpretation and to the economic environment in which the union grew and developed.

Beginning with conspiracy charges against the hatters in 1823, Part I of the book traces the development of the hatter's union through a hundred years of problems involving technological changes, the black list, lethargy born of success, membership control, craft conflicts, kickbacks, local autonomy, formation of national organizations, prison labor competition, and the union label. Part II describes the struggles of the cap makers with the highly competitive and sweatshop cap industry. It tells of the radical changes in the racial composition of the cap workers and of the employers' use of racial differences to weaken the union and to drive wages down. It also describes the intra-union conflicts over the Socialist Labor Party and the fight with the "strike breaking" Industrial Workers of the World. Part III traces the development of the millinery industry and the very strong resistance of the employers to unionization. It describes the struggle for union control between the communists and the more conservative elements in the union. Part IV—One Union—deals with the process and problems of bringing the unions from all branches of the headwear industry into a single union which now claims between 85 and 90 per cent of the workers of the industry. It indicates the importance to the industry of the National Recovery act and the

Millinery Stabilization Commission, and describes the union's part in the formation of the original Committee for Industrial Organization.

Although well written and well organized, the book needs more material of an evaluative and analytical character. This is especially true with respect to the quality of union democracy and to the economics of the industry. Technological changes and geographical shifts are given some attention, but too little is said about the ways in which the union met these changes. The author gives considerable space to the rôle of the NRA but scarcely mentions the Fair Labor Standards act and the Wagner Labor Relations act, both of which must have had a substantial effect upon union growth and problems. It seems to this reviewer, moreover, that the book's ending is too abrupt. It needs a final chapter in which the loose ends are tied together.

Despite these deficiencies, however, the book is a worth-while addition to the all-too-few trade union histories now available to students of the labor movement. We need more union histories written by competent persons in the labor movement.

CLEON O. SWAYZEE

Washington, D.C.

Consumption; Coöperation

Consumer Economic Problems. By H. G. SHIELDS and W. HARMON WILSON. 3rd ed. (Cincinnati: South-Western Pub. Co. 1945. Pp. viii, 760. \$1.88.)

This new edition of *Consumer Economic Problems* designed as a text for high school students, treats the major fields dealt with in college texts on consumer marketing such as distribution processes and costs, buying techniques, consumer aids by governmental and private agencies, and market prices. There is a good section on family finance, including budgeting, credit, and investment analysis, with special attention to insurance and to buying a home. The last section of the book attempts to place the consumer in his economic universe. Subjects found in economic principles courses are discussed: national income and its distribution; money, banking, and credit; market prices; business cycle; fiscal policy; and conservation of natural resources. The consumer's relation to these parts of economics is the focus of interest.

Information given in the text shows painstaking checking for accuracy and for inclusion of the most recent data.

Occasionally the authors stress positive qualities and omit significant negative ones. For example, they give accurate information concerning the Miller-Tydings rider, but they omit important material concerning its possible effects. The act permits manufacturers to make resale contracts with retailers in states permitting such contracts, without violating federal antitrust laws. The authors say: "The purpose of this law is to prevent the so-called price cutting and loss leader practice in selling branded merchandise. It had become a common practice for certain merchants to sell well-known branded merchan-

dise at a loss in order to use that merchandise as bait in attracting customers. This practice is considered misleading to customers and damaging to competitors. Since it is considered an unfair trade practice, manufacturers and distributors have been given the right to establish minimum prices for their merchandise" (p. 104). Retail price maintenance may apply to *any* article, not to loss leaders *alone*. The Temporary National Economic Committee recommended that the Miller-Tydings act be repealed.¹ Thurman Arnold, former Department of Justice antitrust, recommended its repeal.² Another example of an important omission is failure to give the penalties for violation of the Wheeler-Lea amendment. Reporting the law without showing that the penalties for violation are inadequate may give the reader an impression of greater protection than exists. Again, the discussion of the Wool Products Labeling act ignores the common misconception that all new wool is better than any reused or reprocessed wool.

As the publishers state, the book may be used wholly or in part. Chapter 5 on contract seems to reflect the authors' interest in subject matter which is not usually considered an integral part of a text on consumer economic problems. The legal nature of contract is explained in detail. The limited number of pure consumer courses in high schools may justify inclusion of such a chapter as this to meet a wider market. It might justify, also, frequent recognition of problems of producer and distributor although the title of the book is restricted to the consumer.

Obtaining credit is discussed rather thoroughly. The authors do not devote as much space to credit unions as might be desirable considering their potentialities for the small borrower. Organizing and operating a "baby" credit union would make a good project for a high school class and give them experience which might be of real use later in life.

The book is a combination of an economic principles text, a book on consumer marketing, and handy information for a student entering business. The best part, in the reviewer's estimation, is that concerning consumer marketing. This part probably will have also the greatest natural interest for a high school student, although it could have been oriented less toward an adult consumer and more toward an adolescent's buying problems. The chief recognition of the adolescent reader is in the illustrations and projects.

The main defect of the book is that it does not grasp the opportunity to challenge the Hollywood standard of values which its readers are absorbing continuously. Advertising and the movies are two of the major institutions forming the values of high school students. The section on propaganda analysis provides some protection; so also does the analysis of advertising. Values other than those familiar to the high school student are not presented. It is hoped that the authors will include a study of values in their next edition.

VIOLA WYCKOFF

Wellesley College

¹ Margaret G. Reid, *Consumers and the Market* (New York, Crofts, 1942), p. 519, citing *Final Report and Recommendations of the Temporary National Economic Committee*, Public Resolution No. 113, 1941, p. 33.

² *Ibid.*, p. 519, citing *Business Week*, Feb. 22, 1941.

Unclassified Items

New Perspectives on Peace. Edited by GEORGE B. DE HUSZAR. (Chicago: Univ. of Chicago Press. 1944. Pp. viii, 261. \$2.50.)

A spate of books has appeared during the past few years dealing with the problems involved in consummating a peace to follow the present world conflagration. Many of them present and advocate specific plans for achieving lasting or even permanent peace. *New Perspectives on Peace* is not such a book. It offers no specific blueprint for achieving peace. Instead, it seeks to provide the reader with a balanced statement of the various considerations underlying a peace settlement and, as a result, to give him not only a more comprehensive appreciation of the number, variety and complexity of the problems involved but also to place him in a better position to exercise an intelligent judgment in regard to specific proposals which may be advanced.

This approach to the problem was adopted because of a conviction that most discussions of the subject have been one-sided. In an attempt to remedy this limitation a geographer, a historian, an anthropologist, an economist, a sociologist, an international lawyer, an educator, a psychiatrist, a philosopher, and a theologian, all distinguished students of their respective disciplines, were invited to examine the problem of peace from the standpoint of their respective specialities. The result was a series of ten lectures on "The Problem of Peace" sponsored by the Charles R. Walgreen Foundation for the Study of American Institutions at the University of Chicago during the winter quarter, 1944. All of the lectures were given by members of the faculty of the University of Chicago and their papers, considerably revised, constitute the present volume. The problem considered by these specialists is carefully circumscribed in the opening chapter written by the editor, himself a distinguished member of the faculty of European and Asiatic Area Study.

The nub of the book is that peace, like happiness, is a composite of many things and that while it is clearly demonstrable that certain lines of approach are more apt to produce the desired results than others, nevertheless, it is of primary importance to view peace and its attainment as a dynamic problem which requires continuous attention to insure a lasting solution.

To the professional economist, the most interesting chapter will be the one written by Professor Jacob Viner. Nowhere has Professor Viner's cold-chisel style been used to better advantage than in his examination of "... those current interpretations of war which explain it as arising solely or almost so out of economic conditions and out of conflicts of economic interest." Two such interpretations are subjected to searching analysis. One is that war is the "... result of the influence over statesmen exercised by particular and identifiable capitalists who saw an opportunity for profits for themselves in such aggression." The second is that "... as capitalism evolves toward maturity, industrial productivity, population, and capital accumulation develop beyond the capacity of the internal economy to employ them. There results on the part of the strong powers a threefold struggle: for export markets to take off the surplus goods, for colonies for settlement of the surplus population, and

for external fields for safe investment of surplus capital. From this struggle, war naturally arises." Professor Viner supplies abundant evidence for his assertion that these economic interpretations of the causation of war are false.

This is not to say, however, that Professor Viner does not believe that there are economic causes of war and that they are, at times, important. He states specifically that the "Possible economic causes of war can be formally divided into two classes: first, the existence of conflicts of national economic interest and, second, the existence of economic conditions which operate to make countries willing to go to war in pursuit of interests which may or may not be themselves economic in character." In regard to the first class he notes that "The major international conflicts of economic interest in the past have arisen out of the rivalry for export markets, for trade routes, and for access to sources of supply of essential commodities." "Whatever may be the merits or demerits on purely economic grounds and from a unilateral national point of view of trade barriers, they are undoubtedly the major economic contribution, directly and indirectly, to international conflict, tension, and war." Concerning the second class he observes, "Vice-President Wallace has been insisting that we cannot expect to solve the problem of war until we have solved the problem of mass unemployment, and many persons are saying that wars arise out of business depressions." "I can find no distinct historical pattern of impact of mass unemployment or of the business cycle on the problem of war except that countries were more conscious of their strength, were less preoccupied by internal troubles, and were in better financial shape for war, in the prosperity than in the depression phases of their cycles, and that this seems to have been reflected in the temper of their foreign policies. Nevertheless, I do think that in the future the prospects for peace will depend in large part upon our success in solving the problem of mass unemployment and perhaps still more on the character of the methods by which we attack the problem."

Professor Viner's conclusion is " . . . that economic factors contribute to war in a variety of ways, as do also noneconomic factors, but they do so not by inherent necessity but because they operate in a political setting which makes it possible for them to have such an outcome."

It would be a mistake to infer that the views of the specialists contained in this book are all complementary and harmonious. A careful reading of this book leads one to believe, however, that if the contributors could be induced to participate in a panel discussion of peace, there would be general agreement expressed concerning such views as " . . . we must accept certain limitations on the idea of national sovereignty as it has developed in the last hundred and fifty years"; "peace is a product of security, and security is a product of confidence in justice"; "the problem of peace is, then, a problem of order within nations and order among nations"; and " . . . war is essentially a political phenomenon, a way of dealing with disputes between groups." On the other hand, statements such as "Other nations cannot be forced to be peaceful. They must be persuaded. They can be persuaded, if we will but practice what we know to be right"; and " . . . the realization of enduring peace after the present war depends more on the effective organization of an international air force controlled by the world council as the spear point against future ag-

gressions than on any other one thing," might be expected to provoke considerable disagreement. One would expect the listener to find, however, that the areas of agreement were more extensive and more significant than the areas of disagreement.

Despite the statement in the Preface that the lectures out of which this book grew were well received by large audiences and the expressed hope that a similar reception will be accorded the book, this reviewer is of the opinion that it is a "bookish book" that will have a restricted appeal. The main reason for this is that, while the subject is clearly focused in the opening chapter and the succeeding chapters are without exception clearly and interestingly written, only those readers with a background in one or more of the disciplines used as a point of departure will have an adequate core of knowledge around which to correlate and integrate the material presented by specialists from other fields. The book would have been strengthened by the inclusion of a final chapter which drew together the threads spun in the various chapters, classified and organized them into areas of agreement and disagreement, and wove them into a tapestry which the layman could look upon as a conclusion. This could have been done without crossing over to the specific plans approach. At the same time it would relieve the average reader of a task of integration which in many cases he will not care to undertake or of which he may be incapable.

Without question, however, *New Perspectives on Peace* achieves its twin objectives of presenting "first, a step toward a dynamic and synthetic study of international relations; and, second, by bringing together various aspects of the problem of peace, . . . to remedy the prevalent one-sided approaches and . . . provide some realistic background for practical planning." The Walgreen Foundation, the University of Chicago and the various contributors to this volume are to be congratulated for making this significant contribution to a better understanding of the major problem of our times.

LAURENCE DE RYCKE

Occidental College

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John Rogers Commons

1862-1945

John Rogers Commons was born in Hollandsburg, Darke County, Ohio, on October 13, 1862, and died at Raleigh, North Carolina, on May 11, 1945, at the age of 82.

He studied at Oberlin College and The Johns Hopkins University, and taught at Wesleyan University, Oberlin College, the University of Indiana, Syracuse University, and the University of Wisconsin.

An enumeration of the fields in economics in which he did original work reads like the table of contents of a comprehensive textbook: Value and Distribution, History of Economic Thought, Public Utilities, Immigration, Housing, Labor Legislation, Social Insurance, Trade Unionism and Industrial Government, Labor History, Monopoly Price, Index Numbers, Business Cycles and Stabilization, and Tariff. To these one will have to add the following from Political Science: Civil Service and Administration, Municipal Government, and Proportional Representation.

Commons was the creator of American labor history, although in this he had been preceded by his teacher and original inspirer, Richard T. Ely. Ely brought him to the University of Wisconsin in 1904 to prepare the *Documentary History of American Industrial Society* as well as to teach. The history was published during 1909-1911 in eleven volumes.¹ Commons retired after thirty years of teaching at Wisconsin. However, during the decade between his retirement and death he steadily continued his researches and publication as well as his close connection with his students in administrative posts and in academic life.

He was officially connected with the following public bodies: President McKinley's Industrial Commission, the Wisconsin Industrial Commission (1911-1913), and the United States Commission on Industrial Relations (1913-1916). In 1923 with Professors Ripley and Fetter he represented four western states before the Federal Trade Commission on the Pittsburgh Plus case, involving price discrimination as practiced by the United States Steel Corporation. He organized and directed the Bureau of Economy and Efficiency of the City of Milwaukee during the first Socialist administration, 1910-1912.

His connections with unofficial bodies were equally varied. Early in the century he promoted agreements between employers and unions for the National Civic Federation. In 1906 and 1907 he also investigated for the same

¹ A list of Commons's books and more important articles may be found on pp. 9-12 of his *Institutional Economics* (Macmillan, 1934). The John R. Commons Labor Research Library at Madison has nine large volumes containing a complete collection of his shorter works.

organization municipal and private operation of public utilities. In the same years he investigated with others labor conditions in the steel industry in Pittsburgh for the Russell Sage Foundation. The American Association for Labor Legislation began operations in 1909 in a corner of his University office at Madison. Between 1924 and 1926 he was chairman of the voluntary plan of unemployment insurance in the clothing industry of Chicago. He was president of the American Economic Association (1917), associate director of the National Bureau of Economic Research (1920-28), president of the National Monetary Association (1922-23), and president of the National Consumers' League (1923-35).

Among his appearances before Congressional committees doubtless the one in 1913 in support of the elder LaFollette's bill for the physical valuation of the railways by the Interstate Commerce Commission was the most comprehensive in scope. His intimate coöperation with LaFollette had begun in 1905 when the latter, as Governor of Wisconsin, requested him to draft a civil service law. In 1907 he drafted a public utility law for the state of Wisconsin.

Perhaps Commons's greatest contribution as a scholar dealt with the life cycle of economic institutions. He defined an economic institution as "collective action in control of individual action." Commons had no liking for either the winged phrase or for what one might call the winged theory: he knew from experience that human motives have a way of appearing in innumerable combinations. He therefore doubted such master juxtapositions as bourgeoisie and proletariat, technician and business man, and felt that they appeared convincing only from a seat in the British Museum or from an academic armchair. To him the social terrain was far too broken to conform to any sweeping description, but demanded the labor of tireless and meticulous topographers who had the experimenter's imagination and were unafraid to "wade in." He began with the institutions of labor, to which he had received an early introduction as a member of the Typographical Union.

Commons accorded a supreme attentiveness to the institutions contrived by workmen without the aid of mentors from those of higher social station and education—institutions such as trade unions, coöperative buying clubs, coöperative workshops, and the like. He rejoiced in tracing the steps of the unlettered statesmen—the phrase is the Webbs's—whereby these movements laid stable foundations underneath these organizations by the method of trial and error. And as a student of such movements he knew how incompatible such creativeness from below was with external domination by employers, messianic intellectuals, or government.

To Commons the workmen were not abstract building blocks out of which a favored deity called "History" was to shape the architecture of the new society, but concrete beings with legitimate ambitions for a higher standard of living and for more dignity in their lives. Both objectives, he agreed with labor, were primarily realizable through the attainment of citizenship status on the job and in the place of employment, paralleling the worker's status in the democratic state. As self-determining beings, the workers and their movements were to set their *own* objectives, their *own* values, and were

entitled to claim from the intellectuals expert aid in the road they should take to attain the goals set by leaders risen in their midst. If labor's goals were mutually contradictory, the intellectual should so inform them. If labor's objectives were not for the benefit of society and ultimately not for its own, he should tell that too. And above all, the intellectual should be an expert social topographer and trained forecaster of group behavior.

Commons applied this same pattern of fruitful interplay between the undogmatic intellectual and struggling movements to past history. He thus came to formulate a gripping theory of the interrelation between group customs and the common law, of the rise of new social classes, and of their struggle for recognition. In his *Legal Foundations of Capitalism* he showed how in the struggle around the "rent bargain" the barons had reduced the King of England from an over-all owner to a recipient of a land tax fixed by collective bargaining between their representatives and his. In a similar way, the merchants of England began through their participation in the piepowder courts at the fairs to impose the customs of their group upon the presiding judge, who was only too glad thus to fill the void of his ignorance. Out of this unimpressive beginning, through a process of osmosis over several centuries between judges increasingly appreciative of the growing importance of the merchants to the Commonwealth of England and a continuous custom-making by that merchant class to suit changing conditions, came the law merchant, and finally the latter's incorporation in the common law. What produced this significant result was the unremitting pushing by the merchant class; the willingness of undogmatic intellectuals, the judges, to absorb pressures from below and thus prevent frustration; and ultimately a judicial sifting of these merchant customs, the rejection of some and the acceptance of those that looked acceptable from the standpoint of the moving pattern of the law. The intellectual mechanism employed was the expansion of the meaning of *property* from the mere "physical" to embrace the "incorporeal" and the "intangible."

Commons delighted in seeing the judges of America during the last years of his life do with the customs of the labor movement—the fair wage, the normal working day, the union shop, and seniority—what their English predecessors had done with the customs of the merchants. Earlier he had been greatly impressed by the statesmanship of Australia's Court of Conciliation and Arbitration, although not by her system of compulsory arbitration of labor disputes. But the shift away from dogmatism by our official "intellectuals" came only after the labor movement had gathered momentum both in industry and government under the salutary climate of the New Deal—altogether in conformity with Commons's conception of how social change takes place.

Thus ran the Commons theory of the class struggle: it is not a struggle by the rising group to liquidate the old class or to raze the social structure which the latter controlled, but laboring instead to add to the old edifice new and spacious wings to serve as the dwelling places of the customs of the rising class. Such a "class struggle" might appear to some as pathetically limited in its objective, but there was nothing pathetic about its driving

qualities. And those who pioneered in the struggle for recognition were in the front ranks of the history makers. As an intellectual democrat Commons held in the highest esteem Samuel Gompers, who had to develop his theory of the American labor movement as he went about keeping the American Federation of Labor from disintegrating on his hands.

Commons's intellectual democracy perhaps showed clearest when he was interviewing. His was no "technique of modesty" or a simulated ignorance to appeal to the other's ego and thus evoke information. It was a genuine groping, questions without any definite goal—a mere stabbing in this direction and in that. What kept the conversation from degenerating into a boring experience to the person interviewed was Commons's deep earnestness and his unmistakable assumption that the latter's problems were not just his own private worries but of general concern and deeply instructive to any serious-minded interrogator. And then, sometimes after hours had elapsed, a question or a series of questions would come forth which not only touched the nerve of the whole situation but as if by sleight-of-hand made the earlier groping appear as an orderly quest with little waste motion. The result was a fuller grasp of the problem and a suggested solution possessing both freshness and promise. To the bystander it was an absorbing spectacle of intuition and reason pulling in common harness.

In Commons genuine personal modesty went hand-in-hand with unusual intellectual courage. He never shrank from taking risks with his reputation when among the tentative interpretations of a body of factual material one finally loomed as *the* interpretation. There was neither laziness nor lack of regard for accuracy in this flouting of the much over-praised academic caution. Commons was an indefatigable worker whose working day began at four in the morning, and his co-workers knew he would have the manuscript of a whole volume re-checked from the original sources, himself participating, on account of an error in a single quotation.

Probably Commons's boldest theoretical *coup* was his "American Shoemakers, 1648 to 1895," the Preface to Volumes VII and VIII of the *Documentary History of American Industrial Society*. In this study he has given us a breath-taking picture of changes in economic structure, of the formation of "bargaining classes" and the vicissitudes of their respective "bargaining power." He based it on testimony given in the early labor conspiracy trials by strikers, "scabs," master workmen, and "gentlemen of the trade." Little did these witnesses realize that they were providing material for a future economist who would emulate the reconstruction work of the paleontologist.

But great as Commons was as a social investigator inspired by the ideal of the equivalence of all men, he was no less great as a statesman. In fact, with him scholarship and practical statesmanship were forever inseparable. As a statesman he knew that the democratic objective in industrial relations could not be attained through a bureaucracy, however well intentioned or trained, but depended on self-action by all the groups concerned, the government aiding but not dominating. Nor would he enthrone the underdog group. For much as he identified himself with the so-called "common man," he was far from disdainful of employers' and manufacturers' associations and other

organizations among the better-situated groups. Though he fought them before legislative committees when they impeded industrial safety, workmen's compensation, shorter hours for women and the like, he strove to harness the power of these same organizations alongside the trade unions on behalf of an efficient administration of the laws enacted.

And within the groups on the conservative side of the alignment, he sought to enlist and to energize on behalf of those measures the individuals of high purpose and high standards. He thus came to grapple as early as thirty-five years ago with the so-called "road to serfdom," the alleged discovery of our own day, and in the device of the "advisory committee" of the leaders of the groups affected, he provided for an effective preventive of the bureaucritization of the governmental process.

What he meant to his students as man and scholar could not be adequately expressed within the space limits of this review of his life.

SELIG PERLMAN

University of Wisconsin

William A. Scott
1862-1944

William Amasa Scott died on November 6, 1944, at the age of 82. From 1892 to 1932 he taught economics at the University of Wisconsin, where in 1900 he founded the School of Commerce, of which he remained director until 1929. A graduate of the University of Rochester in 1886, he taught three years at the newly founded University of South Dakota, and studied with Richard T. Ely at Johns Hopkins before coming to Wisconsin.

Professor Scott's chief interests were money and banking and the history of economic thought, in both of which he stayed very much within the confines of classical and neoclassical theory. Early in his studies he was strongly influenced by the logic of Marx's value theory, which entranced him until he was rescued from it by Böhm-Bawerk and the other Austrians, to whose doctrines he continued to show great partiality throughout his life. In 1903 he translated Böhm-Bawerk's *Recent Literature on Interest*, and in 1915 published a chapter on the Austrians in Ingram's *History of Political Economy*. His work in this field culminated with the publication in 1933 of *The Development of Economics*. Although conversant with historical backgrounds and the institutional basis of thought, Professor Scott deliberately chose to present the history of economic ideas as a systematic chronological exposition of doctrines as they appeared in the minds of their creators rather than to fit them into a scheme of reference of his own or to compare their adequacy with currently accepted theories. He preferred to let the successive writers of theory criticize one another; in his eyes the history of theory was its own judgment.

His monetary theory was akin to Menger's and closely resembled the views which were given wide currency in this country by Professor James Lawrence Laughlin. An opponent of the simple quantity theory, Scott could be classed

as a commodity theorist. Stressing the influence of forces outside the monetary system in the price-making process, he treated bank credit as a force which modified the value of gold and thus affected prices indirectly. A strong believer in the gold standard, he opposed bi-metallism in the days of Bryan and McKinley. Later he was active as a speaker and writer in the National Citizens' League's agitation for banking reform, which eventually led to the Federal Reserve System. He followed the classical belief in commercial banking, looking askance at the tendency of banks to acquire investment securities, a view which he adhered to throughout his career.

A somewhat diffident man, Professor Scott nevertheless loved contact with his students and colleagues. He was a thorough, energetic, and vigorous lecturer and expected a high level of attainment from his students. As an educator he followed the classical rather than the modern trend, and during his tenure of office he kept economics as the central part of the curriculum of the School of Commerce. Himself a student of history and theory, he was disinclined to develop the periphery of economics or to confuse education with mere vocationalism. Professor Scott's influence, which during his life was on the side of high educational standards and intellectual integrity, continues among his colleagues and former students.

WALTER A. MORTON

University of Wisconsin

NOTES

Editorial Note

After the year's leave of absence which was announced in the September 1944 number of the *Review* I have again assumed the duties of Managing Editor. It has been a pleasure, upon returning and being able to read the contents of the *Review* for the past year, to see with what entire competency Professor Machlup has conducted its affairs. The present number of the *Review* has been entirely Professor Machlup's responsibility and some of his commitments carry over into the December number. Thereafter my responsibility will be complete.

At the time of my departure I wrote that the way in which members of the Association could lighten the burden of the Acting Managing Editor was to provide him with a flow of good manuscripts. I now invoke the same thought in my own behalf. At this time I should like again to emphasize the need, so rarely satisfied, which the *Review* has for well-informed and well-developed articles on timely matters of public economic policy. The run of current articles is strongly in the theoretical vein and, while the *Review* will always by its nature commit a substantial amount of its space to articles of this sort, they need during the present time of critical importance of economic policy to be balanced by others in that vein.—P. T. HOMAN

It is now reasonably certain that the traditional annual meeting of the American Economic Association will be held toward the end of 1945, or early in 1946. The announcement of time and place, as well as the preliminary issue of the program, will appear in the December number of the *Review*.

The following persons have recently become members of the AMERICAN ECONOMIC ASSOCIATION:

Albrecht, V. N., Bureau of the Budget, Room 435, State Dept. Bldg., Washington 25, D.C.
Andersson, H. F., 504 S. Warren Ave., Big Rapids, Mich.

Beckenstein, Miss E. C., 1878 Harrison Ave., New York 53, N.Y.
Bell, H. P., Dartmouth College, Dept. of Economics, Hanover, N.H.
Beveridge, Sir W. H., K.C.B., C.B., Tuggal Hall, Chathill, Northumberland, England.
Blais, M., International House, 500 Riverside Dr., New York, N.Y.
Brown, W. F., University of California, Los Angeles, Calif.

Callis, H. G., University of Michigan, Dept. of Econ., Ann Arbor, Mich.
Cella, Capt. F. R., 3251 S. Stafford St., A-1, Arlington, Va.
Cevallos, B., Consulado General de El Salvador, 270 Broadway, New York, N.Y.
Chavrid, V. D., 14-H Hillside Rd., Greenbelt, Md.
Chenkin, A., 2813 Naylor Rd. S.E., Washington 20, D.C.
Clapham, Sir J., C.B.E., Storey's End, Cambridge, England.
Coutinho, F. R., 425 E. 51st St., New York, N.Y.
Crouch, C. E., Vanderbilt University, Nashville 4, Tenn.

Davis, H. S., University of Pennsylvania, Industrial Research Dept., 3445 Walnut, Philadelphia, Pa.
Diaz, M. O., College of Agric. and Mech. Arts, Mayaguez, P.R.
Duning, R. W., 1503 Philadelphia Nat. Bank Bldg., Philadelphia, Pa.

Feinn, Miss B. A., Laura Scales House, Smith College, Northampton, Mass.
Feit, H., 41-42 47th St., Sunnyside, L.I., N.Y.

Fisher, G. C., 3800 Askew Ave., Kansas City 3, Mo.

Frank, I., 4301 Kaywood Dr., Mt. Rainier, Md.

Gamble, P. L., Massachusetts State College, Dept. of Econ., Amherst, Mass.

Gamser, Capt. H. G., 190 W. 170th St., New York 52, N.Y.

Gilbert, R. V., 2220 N. Quantico St., Arlington, Va.

Gooze, S. P., c/o Goldman, 855 E. 175th St., Bronx, New York, N.Y.

Gostomski, A., 65 Broadway, 16th Fl., New York 6, N.Y.

Griffin, A. G., 910 E. Lake Dr., Decatur, Ga.

Gwaltney, Miss B., American Bankers Assoc., 22 E. 40th St., New York 16, N.Y.

Harper, F. A., Cornell University, Dept. of Agric. Econ., Warren Hall, Ithaca, N.Y.

Hauser, P. M., Bureau of the Census, Washington 25, D.C.

Hitch, Lt. C. J., 2869 28th St. N.W., Washington 8, D.C.

Howard, G. E., 5521 S. Blackstone Ave., Chicago, Ill.

Howard, J. B., U. S. Tariff Commission, Washington 25, D.C.

Hunter, K. H., 1408 Decatur St. N.W., Washington 11, D.C.

Ianni, C., Viaduto Boa Vista 67, 7° andar, Sao Paulo, Brazil, So. Amer.

Isserow, Miss M., 1343 55th St., Brooklyn 19, N.Y.

Ivory, A., 156 Washington St., Weymouth, Mass.

Kahn, I., 115 Broadway, New York, N.Y.

Katona, Dr. G., Dept. of Agric., Bur. of Agric. Econ., Washington 25, D.C.

Kosloff, I. R., 1315 E. 53rd St., Chicago 15, Ill.

Lasswell, H. D., 1 University Pl., New York 3, N.Y.

Leslie, G. A., American Fair Trade Council, 11 W. 42nd St., New York 18, N.Y.

Levin, N. W., 570 Lexington Ave., New York 22, N.Y.

Lindahl, M. L., Dartmouth College, Dept. of Econ., Hanover, N.H.

Lintner, J., Apt. 21, 7 Sumner Rd., Cambridge 38, Mass.

Littler, R., Littler, Coakley and Lauritzen, 111 Sutter, San Francisco 4, Calif.

Livingston, E. L., 4800 Georgia Ave. N.W., Washington 11, D.C.

Loftus, Lt. J. E., Hq. Island Commander, Military Gov. Sec. (M6-C-11), Navy No. 3256, c/o Fleet Post Office, San Francisco, Calif.

Loud, Miss M. A., 1417 N St. N.W., Washington, D.C.

Lyons, W., 1351 Taylor St. N.W., Washington 11, D.C.

Mayhill, Lt. R., Delphi, Ind.

Miller, M. H., 3937 S St. S.E., Washington 20, D.C.

Mohn, K. B., 2924 Berkley Rd., Ardmore, Pa.

Muench, C., Wartburg College, Waverly, Iowa.

Neumann, B. R., 527 Fifth Ave., New York 17, N.Y.

Newark, Miss C., Iowa State College, Dept. of Econ. and Soc., Ames, Iowa.

Otteson, S. F., 236 N. Washington, Delaware, Ohio.

Patton, A. E., 72 W. Adams St., Chicago, Ill.

Pierce, L. F., 4208 2nd Rd. N., Arlington, Va.

Piovia, F., 1433 Belmont St. N.W., Washington 9, D.C.

Plimsoll, Major J., Australian Military Mission, Munitions Bldg., Constitution Ave., Washington, D.C.

Presanis, A., Ministry of Finance, 8 Aldford House, Park St., London, W. 1, England.

Robbins, Miss D., 344 W. 72nd St., New York 23, N.Y.

Robinson, Lt. J. A., 815 18th St. N.W., Washington 6, D.C.

Salz, A., Ohio State University, Dept. of Econ., Columbus 10, Ohio.

Schwarz, Rev. J. H., 215 Missouri Ave., Peoria 4, Ill.

Shames, Dr. L. M., Bent Creek Experiment Forest, Rt. 3, Asheville, N.C.

Shere, L., 3000 39th St. N.W., Washington 16, D.C.

Slacum, A. B., Cambridge, Md.

Sloan, H. G., University of Oklahoma, College of Bus. Admin., Norman, Okla.

Straus, E. M., 1700 Taylor St. N.W., Washington, D.C.

Tuckerman, G., Jr., Institute on Postwar Reconstruction, New York University, Washington Sq., New York 3, N.Y.

Warshow, H. T., National Lead Co., 111 Broadway, New York 6, N.Y.

Wein, H. H., 1300 N. Tuckahoe St., Falls Church, Va.

Weiss, S., 3073 S. Buchanan, Fairlington, Va.

White, H. F., John Brown University, Div. of Econ. and Bus. Admin., Siloam Springs, Ark.

White, J. A., Union Central Bldg., Cincinnati, Ohio.

Windhorst, R. B., 1029 4th St. S.E., Minneapolis 14, Minn.

Wood, Miss H., 1916 G St. N.W., Apt. 2, Washington 6, D.C.

The Book Review Subcommittee of the Executive Committee, American Economic Association, composed of Eveline M. Burns, Frank W. Fetter, and Howard S. Ellis, chairman, met March 21, 1945. By the invitation of the committee there were also present Fritz Machlup and Edwin G. Nourse.

The committee considered a suggestion that every review be submitted to the author for criticism before publication. The sentiment of the committee and its visitors was unanimously opposed to such a requirement. The chief difficulty would be the very great delay in carrying out such a process. Some authors are abroad, some books have numerous authors, some authors are completely preoccupied with other things, and, occasionally even, authors are deceased. The process of exchange of views between the reviewer and author might drag out almost indefinitely, and even then very often terminate with categorical objection on the part of authors to the appraisals made in the review. It was felt that reviewers would be less critical and candid, and in general capable economists would be reluctant to undertake reviews if this requirement were imposed. However, in considering this proposal the committee recognized that in some cases reviewers might actually want to allow the author to examine the review in advance of publication; and in these cases the editor might facilitate the process, if that were requested by the reviewer.

The committee considered also the suggestion that the Managing Editor submit each review, after reading it himself, to some other member of the Board of Editors. Dr. Machlup pointed out, however, that this again would make for long delays in the appearance of reviews and that it would almost double the work of the Managing Editor's office. The committee, however, desires to retain something of this suggestion in the form of the following recommendation to be transmitted by the Executive Committee to the Managing Editor: that, in cases of reviews which for one reason or another appeared to be "doubtful" (suspiciously laudatory, immoderately critical, of uncertain accuracy, etc.), the Managing Editor submit the review in question to another member or other members of the Board or to a qualified outsider.

The committee also believed that a printed "Suggestions to Reviewers" should be drawn up in such a fashion as to guide reviewers in general and warn them of the worst mistakes. The committee delegated the task of drafting these suggestions to Dr. Burns and supplied her with a number of comments and guiding principles. This draft has been checked over and modified somewhat by the other members of the committee and by the Acting Managing Editor, and is attached to the present Report.

The two suggestions made thus far are precautionary in their general character. In case grievances nevertheless arise, the committee believes it is desirable that the Executive Committee request the Managing Editor to transmit to the President of the American Economic Association all written complaints with reasonable promptness after their receipt.

Respectfully submitted,

EVELINE M. BURNS

FRANK W. FETTER

HOWARD S. ELLIS, *Chairman*

The Board of Governors of the Federal Reserve System has authorized publication of a series of studies dealing with major economic problems of the United States in the post-war period. These studies have been written by specialists on the staff of the Board and the Federal Reserve Banks.

As the preface to the series explains: "These studies are in substance by-products of the work done by these economists in the performance of their current duties. The views expressed in these papers are entirely those of the authors. In some cases dissenting opinions or comments by other members of the staff are printed at the end of a paper. The Board's authorization of the publication of these studies is motivated solely by the belief that the material presented may be of value in furthering the discussion of the many difficult questions with which the country will be faced. There is no official endorsement of any of the opinions or proposals of the authors."

The studies will be published in a series of pamphlets, each containing several essays on related subjects by individual authors. The first pamphlet, *Jobs, Production, and Living Standards* will be ready for distribution in September. It will contain papers by E. A. Goldenweiser, Everett E. Hagen, and Frank R. Garfield. As the other pamphlets become available they will be announced in the *Bulletin*.

Individual pamphlets may be purchased for 25 cents each, or for 15 cents each for group purchases of ten or more in single shipment. Orders should be sent to the Division of Administrative Services of the Board of Governors, Washington 25, D.C.

Upon the request of Congressman Spence of the House Banking and Currency Committee, the Economists' Committee on the Bretton Woods Program (Professor Seymour E. Harris, chairman) undertook a poll of all members of the American Economic Association regularly resident in the United States. They were asked about their response to the Committee's statement urging Congress to approve the articles of agreement at Bretton Woods. A previous poll had been directed to 450 Association members—"all members listed in the American Economic Association Directory [for 1942] as primarily interested in the fields of (1) Economic Systems, National Economics; (2) Business Cycles and Fluctuations; (3) Money and Banking, Short-Term Credit; and (4) International Trade, Finance, and Economic Policy." The second poll, according to Professor Harris, showed results almost identical to those of the previous sample. The numerical results were as follows:

Number of ballots mailed	3766
Ballots which did not reach addresses and were returned to this Committee	44
	<hr/> 3722
Number of ballots sent back to this Committee, to April 11	1761 or 46.77%
Ballots signed but not checked for approval or disapproval	43
Number approving, but not included in poll because of signer's official connection with the Bretton Woods Conference	7
	<hr/> 50
Number of ballots counted is remainder	1711
Of which approve without reservation	1523
Of which approve with reservations	14
	<hr/>
Total number approving	1537 or 89.83%
Of which disapprove	168
Of which approve of Bank but disapprove of Fund	6
	<hr/>
Total number disapproving	174 or 10.17%

In a letter written May 7, Senator Robert F. Wagner, chairman of the Senate Banking and Currency Committee, said to Professor Harris: "The results of Poll II furnish a

complete answer to those who claim that the first poll did not really represent the views of the economists of this country. The overwhelming vote in favor of the Bretton Woods proposals is, of course, very gratifying to me and I deeply appreciate the splendid service you have rendered by furnishing the American people with the true facts regarding the views of economists on the Bretton Woods program."

Colonial Williamsburg has in preparation an index to the *Virginia Gazette*, published in Williamsburg from 1736 to 1780. For several years two papers were printed with the same name and in 1776, there were three. Because of the details in the advertisements and the news from abroad and from other colonies as well as Virginia, it is hoped that the index will be of value to students of colonial history. This compilation, begun by the late Hunter D. Farish, is now under the direction of Lester J. Cappon, research editor of the Institute of Early American History and Culture, Williamsburg, Virginia. Dr. Cappon would appreciate receiving information about any copies of the *Virginia Gazette* in institutions or private hands with whom the project has not had correspondence, as he desires to obtain photostats or photoprints of such copies.

J. E. Kirshman, chairman of the department of economics of the College of Business Administration of the University of Nebraska, died on May 6, 1945, following an illness of several months.

Carl C. Plehn, a member of the faculty of the University of California from 1893 to his retirement in 1937, passed away at his home in Berkeley on July 21, after a short illness.

Harry J. Winslow died July 27, 1944.

Edith Elmer Wood died April 29, in Morristown, New Jersey.

Appointments and Resignations

Curtis Aller, lecturer in economics and business at the University of Washington, has resigned to accept the position of assistant wage stabilization director for the War Labor Board in Honolulu.

Martin Atlas, formerly economist in the Division of Tax Research of the Treasury Department, is now senior economist in the Office of Surplus Property, Department of Commerce.

James P. Adams, until recently vice president of Brown University, has assumed his duties as provost of the University of Michigan, where he also holds an appointment as professor of economics.

E. Wight Bakke has been appointed Sterling professor of economics at Yale University.

Lawrence W. Bass is now serving in the capacity of director of chemical research, Air Reduction Company, and director of research and development, U. S. Industrial Chemical, Inc.

William W. Bennett, professor of economics at Union College, taught during the summer session at the Johns Hopkins University.

Howard Berolzheimer recently resigned his assistant professorship of finance in the School of Commerce, Northwestern University, to accept a position as economist for the National Tax Equality Association, Chicago.

Karl F. Bode is on leave of absence from Stanford University while serving with the American Airforce Evaluation, E.T.O.

Arthur M. Borak, associate professor of economics at the University of Minnesota, will be on leave for the fall and winter quarters while serving as a member of the faculty of the Army University Center in Fontainebleau, France.

Kenneth E. Boulding of Iowa State College was granted a leave of absence during the summer to accept a temporary research position with the Committee for Economic Development.

Richard M. Bourne has been appointed instructor in economics in the College of Business Administration of the University of Nebraska, after serving as district price economist in the Office of Price Administration during the past three years while on leave from the University of Wyoming.

Robert P. Briggs, who has been on leave for the past three years as chief of the fiscal division of the Detroit ordnance office and later as assistant to the president of the Standard Steel Spring Company, has returned to the University of Michigan as vice president in charge of business and finance and professor of accounting in the School of Business Administration.

George H. Brown, professor of marketing in the School of Business, University of Chicago, has been elected president of the Chicago chapter of the American Marketing Association.

J. Douglas Brown, director of the Industrial Relations Section of Princeton University, has been designated Dean of the Faculty.

William Adams Brown, Jr., has resigned his position as Eastman professor of political economy at Brown University and will continue his work with the Division of Economic Studies, Department of State, Washington.

Norman S. Buchanan, professor of economics at the University of California and acting professor of economics at Stanford University during the spring quarter 1944-45, will continue on leave until July 1, 1946, serving as director of a study sponsored by the Twentieth Century Fund, dealing with currency stabilization, international investment and commercial policy.

Helen G. Canoyer, associate professor of economics and marketing at the University of Minnesota, has extended her leave until April, 1946, and is transferring from the Department of Commerce to the Office of the Alien Property Custodian in Washington.

C. C. Carpenter, price executive of the Eastern Kentucky office of the Office of Price Administration, will resume his duties as professor of economics at the University of Kentucky in September.

C. Lawrence Christenson has been appointed chairman of the department of economics at Indiana University.

A. Hamilton Chute, associate professor of marketing at the University of Minnesota, will be on leave for the fall and winter quarters while serving as a member of the faculty in the Army University Center in Fontainebleau, France.

Morris A. Copeland has joined the staff of the National Bureau of Economic Research to conduct a two-year project to develop measurements of the flow of money payments, and has severed his connections with the War Production Board, where for several years he was in charge of statistics of munitions production.

Mervyn Crobaugh, associate professor of economics at Washington and Lee University, is on leave of absence while serving with the Office of Price Administration.

Malcolm M. Davisson, chairman of the department of economics, University of California, has been promoted from associate professor to professor of economics.

Joel P. Dean has resigned his position at the University of Chicago to become professor of business economics in the School of Business at Columbia University.

Oscar K. Dizmang is on leave of absence from Whitworth College while acting as price economist for the Spokane district office of the Office of Price Administration.

Acheson J. Duncan has resumed his duties in the department of economics at Princeton University upon the completion of about two and a half years of military service.

W. J. Eiteman, a member of the economics department at Duke University, has been granted a leave of absence to accept a position with the Army, teaching in Paris.

H. A. Ellis has resigned as head of the secretarial science department of the College of Business Administration, University of Georgia.

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H. A. Ellis has resigned as head of the secretarial science department of the College of Business Administration, University of Georgia.

Elden J. Facer, instructor in business at the University of Utah, is on a two-year leave with the Army of Occupation in Europe.

Herbert J. Feis, former advisor to the Department of State, has been appointed Patten lecturer at Indiana University during the first semester of 1945-46.

George Filipetti, professor of business administration at the University of Minnesota, will be on leave for the fall and winter quarters while serving as a member of the faculty of the Army University Center in Fontainebleau, France.

William E. Folz is returning to the University of Idaho with the rank of professor after three years' absence during which he was in federal service in Washington.

Robert S. Ford, who has been serving as director of the State Department of Business Administration at Lansing since early in 1942, is returning to the University of Michigan to resume his work as associate professor of economics and director of the Bureau of Government.

John Dean Gaffey has transferred to the Los Angeles District office of the Office of Price Administration from Washington.

Paul M. Gregory, associate professor of economics at the College of William and Mary, has accepted an appointment as associate professor of economics at the Woman's College of the University of North Carolina.

William Haber, who has been serving with the War Manpower Commission and later with the Office of War Mobilization and Reconversion during the past three years, is returning to the University of Michigan, where he is professor of economics.

Bernard F. Haley, who has been serving as director of the Office of Economic Affairs in the Department of State, is resuming his teaching duties at Stanford University at the beginning of the autumn quarter, 1945-46.

Robert W. Harbeson, on leave of absence from Rutgers University, has transferred from the Office of Price Administration to the Bureau of Transport Economics and Statistics, Interstate Commerce Commission, where he is in charge of special work in the field of transport cost analysis.

Albert G. Hart has resigned as professor of economics at Iowa State College, effective September, 1945.

Kent T. Healy has been promoted to the Thomas DeWitt Cuyler professorship of transportation and has been named chairman of the department of economics, Yale University.

Victor C. Hiatt has been granted a leave of absence from his position as assistant professor of commerce in the Kansas State Teachers College of Emporia, to teach in the Army University Center, Fontainebleau, France.

Calvin B. Hoover, professor of economics at Duke University, is on leave of absence, serving on a special assignment by the War Department to set up an Economic Intelligence Branch of the Economic Division in the United States Group of the Control Council for Occupied Germany.

Joseph Keiper, formerly senior assistant, has been appointed instructor of economics, School of Commerce, Accounts, and Finance, New York University.

Donald D. Kennedy, on leave of absence from the University of Newark, has resigned as assistant general manager at Farrell-Cheek Steel Co., to accept appointment as chief of the commodities division, Department of State, under Assistant Secretary W. L. Clayton.

Clark Kerr of the University of Washington has accepted the position as chairman of a commission dealing with wages and labor conditions in the meat-packing industry.

M. D. Ketchum, professor of economics in the College of Commerce, University of Kentucky, has been granted a leave of absence and will be a member of the staff of the School of Business, University of Chicago, for the year 1945-46.

Frank L. Kidner, assistant professor of economics, University of California, while on leave served as assistant executive officer of the International Secretariat at the United Nations Conference in San Francisco for the duration of the conference.

Willford I. King, professor of economics, New York University, School of Commerce, 1927 to 1945, has become professor emeritus.

Harold D. Koontz, on leave of absence from Colgate University, has resigned as assistant to the vice president in charge of research of the Association of American Railroads to accept the position of coordinator of planning for Transcontinental & Western Air, Kansas City, Missouri.

Dorothy Lampen, assistant professor of economics at Hunter College, taught in the Summer School at the Johns Hopkins University.

C. E. Landon, assistant professor of economics at Duke University, has returned to his teaching duties after a leave of absence in Washington, where he was business economist with the iron and steel casting section of the Office of Price Administration.

B. C. Lemke has been appointed assistant professor in accounting at the Iowa State College.

C. Edward Lindblom, instructor in economics at the University of Minnesota, was a member of the faculty of the School for Workers at the University of Wisconsin during July and August.

Richard A. Lester, formerly of Duke University, has been appointed associate professor of economics and research associate in industrial relations in Princeton University.

J. R. Mahoney, director of the Bureau of Economic and Business Research at the University of Utah, accepted a summer assignment as consultant for the Surplus Property Board, Washington.

Leonard Mathy of the University of Illinois was acting instructor in economics and business at the University of Washington during the spring semester of 1945.

James M. McConahey, formerly lecturer in accounting at the University of Washington, has been made professor of accounting.

Wilbur Meek, instructor in economics at Keystone College and formerly with the Resettlement Administration and the Rural Rehabilitation Federal Emergency Relief Administration, Washington, has been appointed instructor in economics, School of Commerce, Accounts, and Finance, New York University.

Charles J. Miller, formerly associate professor of marketing at the University of Washington, has been promoted to professor of marketing.

Herbert E. Miller, assistant professor of accounting at the University of Minnesota, has returned after spending a six-months' leave of absence at the State University of Iowa.

James E. Moffat, head of the department of economics at Indiana University since 1935, has resigned as administrative head and will continue to serve as professor of economics.

Aurelius Morgner, instructor in economics at the University of Minnesota, was visiting assistant professor of economics at the University of Missouri for the summer session.

Vernon A. Mund of the University of Washington recently spent a month in service for the War Labor Board in Alaska, dealing with labor problems associated with the salmon canning industry.

Mary E. Murphy has recently been promoted to the rank of assistant professor of economics at Hunter College.

Edgar Z. Palmer, professor of economics in the College of Commerce, University of Kentucky, has been granted a leave of absence for the year 1945-46 and will serve as research associate in the School of Commerce, University of Wisconsin.

Ralph C. Pickett, recently placed on inactive duty with the Army after three years' service as statistical officer at the Army Air Forces Bombardier School, Midland, Texas, has returned to his position as head of the department of commerce in the Kansas State Teachers College of Emporia.

J. C. Poindexter, visiting associate professor of economics, Louisiana State University, has resigned.

M. A. Reilly has resigned as instructor of economics, Louisiana State University, and accepted a position as instructor of economics at Simpson College.

Charles F. Remer, who has been serving in the Office of Strategic Services and the Department of State during the past three years, is returning to the University of Michigan, where he is professor of economics.

Charles N. Reynolds is serving as acting chairman of the department of economics at Stanford University.

C. T. Schwenning has been granted an extension of leave from the University of North Carolina to direct the courses in business administration at the Army University Study Center at Shrivenham, England.

Matt J. Sessler is now associated with the American Type Founders Sales Corporation in the field of marketing and sales control.

Floyd R. Simpson, formerly acting assistant professor at the University of Washington, has been made assistant professor in the College of Economics and Business.

Hans Staehle, formerly of Harvard University, taught in the department of economics at Williams College during the summer semester.

Eugene Staley, formerly of the faculty of the Graduate School of International Studies, Washington, is now director of the Bay Region office of the Institute of Pacific Relations and will also give a course in the Graduate School of Business at Stanford University during the winter and spring quarters.

Thomas H. Smith has been promoted from instructor to assistant professor of economics at Purdue University.

C. P. Spruill, Jr., has resumed his duties as professor of economics and dean of the College at the University of North Carolina after two years' service as a Major in the Army.

Harry W. Sundwall, lecturer in business at the University of Utah, is taking a year's leave of absence.

Virginia G. Taucher has been appointed instructor in economics at Vassar College.

Paul S. Taylor, professor of economics at the University of California, served as chairman of a national conference on migratory labor held June 26, at Princeton University.

Ralph Thayer, formerly acting instructor in economics at Stanford University, was appointed acting assistant professor of economics at the University of Washington during April to June.

Mabel Timlin of the University of Saskatchewan has been made Guggenheim fellow for 1945-46 to study problems of welfare economics.

Nancy Torres has been appointed instructor in economics at Vassar College.

Arthur R. Upgren recently resigned his post at the Minneapolis Federal Reserve Bank and will resume active teaching duties as professor of economics at the University of Minnesota on a part-time basis, devoting the balance of his time to his duties as associate editor of *The Minneapolis Star Journal*.

R. H. Van Voorhis, instructor of economics at Duke University, has accepted a position as accountant for the West Virginia Paper and Pulp Company.

Dilworth Walker, dean of the School of Business, University of Utah, accepted a summer assignment as consultant to the State Tax Study Committee at Ogden.

John P. Wernette has resigned from the faculty of the Harvard Graduate School of Business Administration and has become president of the University of New Mexico.

William O. Weyforth, on leave from the Johns Hopkins University, is serving as Assistant State Manpower Director for Maryland.

H. D. Wolf of the University of North Carolina has been reappointed as a member of the North Carolina Unemployment Commission and is also serving as a member of the Regional War Labor Board at Atlanta.

Dean A. Worcester, formerly assistant professor of economics at Louisiana State University, has been appointed head of the marketing department of the College of Business Administration, University of Georgia.

FORTY-SECOND LIST OF DOCTORAL DISSERTATIONS IN POLITICAL ECONOMY IN PROGRESS IN AMERICAN UNIVERSITIES AND COLLEGES

The first list of this kind was dated January 1, 1904, and was sent to all members, but not regularly bound in the publications. A notation as to the earlier lists, extending from 1905 to 1927, may be found in the *Review* for September, 1927, page 574. Annual lists thereafter are to be found in the September number of the *Review* for each year.

The present list specifies doctoral degrees conferred, doctoral dissertations completed and accepted by the various universities, and the theses still in preparation. The last date given is the probable date of completion. In cases where the publishers of completed dissertations were given, this information has been reported.

In order to avoid repetition, dissertations upon which work has been suspended owing to the writers' service with the armed forces or absorption with the war effort have not been listed. It is planned to list the titles of these dissertations upon completion.

The list represents the status of the several theses on June 15, 1945, except for a few items later reported as completed or published.

Economic Theory; General Works

Degrees Conferred

CLEO FITZSIMMONS, Ph.D., Illinois, 1944. Some contributions of economic theory to home economics.

LAWRENCE R. KLEIN, Ph.D., Massachusetts Institute of Technology, 1945. The Keynesian revolution.

Thesis Completed and Accepted

JAMES HARTMAN STAUSS, A.B., Grinnell, 1936; S.M., Iowa State, 1937. The entrepreneur: the firm. 1945. *Wisconsin*.

Theses in Preparation

ROBERT MITCHELL BIGGS, A.B., Wayne, 1939; A.M., Michigan, 1940. The historical aspects of the development of the theory of capital. 1945. *Michigan*.

ARTHUR AARON BRIGHT, JR., A.B., Dartmouth, 1939; C.S.M., 1940; A.M., Chicago, 1942. Technological change and the electric lamp industry. 1945. *Chicago*.

EVSEY DAVID DOMAR, A.B., California, 1939; A.M., Michigan, 1941; A.M., Harvard, 1943. Economics of expansion. 1945. *Harvard*.

BERT FRANK HOSELITZ, D. Juris., Vienna, 1936; A.M., Chicago, 1945. The Austrian school of economics. 1945. *Chicago*.

ELMER JEREMIAH JEROME, B.S.S., College of the City of New York, 1937; A.M., Columbia, 1938. Economic dualism. 1946. *Columbia*.

MOTHER JEANNETTE KIMBALL, R.S.C.J., A.B., Barat College, 1937; A.M., Marquette, 1942. The economic doctrines of John Gray (1799-1850). 1946. *Catholic*.

ARTHUR LEIGH, A.B., Colgate, 1941. Studies in the development of the theory of capital and interest from Locke to Walras. 1945. *Chicago*.

CHARLES EDWARD LINDBLOM, A.B., Stanford, 1937. Some aspects of the interrelationships between labor unions and the competitive price system. 1945. *Chicago*.

- GEORGE JOHN MALANOS, B.S., Miami, 1942; A.M., Harvard, 1944. Static economic theory. 1945. *Harvard*.
- CHRISTINE HARRISON MCGUIRE, A.B., Muskingum, 1937; A.M., Ohio State, 1938. Economic incentives. 1945. *Chicago*.
- RICHARD E. MULCAHY, A.B., Gonzaga, 1939; M.A., 1940. The economic theories of Heinrich Pesch. 1946. *California*.
- MELVIN WARREN REDER, A.B., California, 1939. Welfare economics and public policy. 1946. *Columbia*.
- ALFRED G. SMITH, JR., A.B., Columbia, 1934; A.M., 1939. Some aspects of location theory, with special reference to the southeastern states. 1946. *Columbia*.
- HARLAN MONELL SMITH, A.B., Chicago, 1936; A.M., 1938. The price mechanism and the concept of social value. 1945. *Chicago*.
- SAMI SEMSIDDIN TEKINER, A.M., Cornell, 1941. A study of dynamic economic models. 1945. *Chicago*.

Economic History

Degrees Conferred

- RAYMOND GIDDENS CAREY, Ph.D., Chicago, 1945. The liberals of France and their relation to the development of Bonaparte's dictatorship, 1799-1804.
- EASTIN NELSON, Ph.D., Texas, 1945. The development of economic policy in the Republic of Panama.
- NEWLIN RUSSELL SMITH, Ph.D., Columbia, 1945. Land for the small man: English and Welsh experience with publicly-supplied small holdings, 1860-1937.

Theses in Preparation

- SHIRLEY AKERMAN BILL, A.B., Chicago, 1941; A.M., 1942. The background of the interstate comity clause of the federal constitution. 1945. *Chicago*.
- WILLIAM R. BRAISTED, A.B., Stanford, 1939; A.M., Chicago, 1940. The development of the Pacific as an American naval problem before 1909. 1945. *Chicago*.
- JAMES AUGUSTUS CLOSE, A.B., Yale, 1929; M.B.A., Harvard, 1931; C.L.U., American College of Life Underwriters, 1940. The history of the Anaconda Copper Mining Company. 1945. *Michigan*.
- GEORGE H. FAUST, A.B., Henderson State Teachers College, 1937; A.M., Arkansas, 1939. The economic contributions of the United States to the Republic of Colombia, 1920-1940. 1945. *Chicago*.
- HENRI FOLMER, A.M., Denver, 1939. French expansion in the trans-Mississippi Southwest during the eighteenth century. 1945. *Chicago*.
- HENRIETTA E. HAFEMAN, A.B., Lawrence, 1925; A.M., Wisconsin, 1928. Alexander Macdonald, labor member of Parliament. 1945. *Chicago*.
- JAY GORDON HALL, A.B., Western Ontario, 1934; A.M., Chicago, 1944. A history of the automobile and of new highways in Latin America. 1945. *Chicago*.
- HARRY FRANKLIN JACKSON, A.B., Marshall College, 1933; A.M., West Virginia, 1937. Technological development of Central America to 1907. 1945. *Chicago*.
- HAROLD O. LEWIS, B.A., Amherst, 1929; M.A., Howard, 1930. The growth of the seventeenth century Danish capitalism. 1945. *American*.
- WILBUR T. MEEK, A.B., Princeton, 1922. A history of Mexican money. 1946. *Columbia*.
- MARTHA C. MITCHELL, A.B., Alabama, 1943; A.M., Chicago, 1944. A history of Birmingham, Alabama. 1945. *Chicago*.
- DAVID M. PLETCHER, A.B., Chicago, 1941; A.M., 1941. The development of Northwestern Mexico, 1870-1910. 1945. *Chicago*.
- LADISLAS REITZER, D. Juris., Royal Hungarian University, 1936; D. of Pol. Sci., University of Geneva, 1938. Early relations between Great Britain and the Argentine. 1945. *Chicago*.
- ANNA JACOBSON SCHWARTZ, A.B., Barnard, 1934; A.M., Columbia, 1935. State banking before the Civil War: a study of Pennsylvania banks. 1946. *Columbia*.
- JAMES EDWARD THOROGOOD, A.B., University of the South, 1935; A.M., 1937. A history of public finance in Tennessee. 1946. *Texas*.

- ROBERT W. TWYMAN, A.B., Indiana, 1940; A.M., Chicago, 1942. A history of Marshall Field and Company. 1945. *Chicago*.
ALICE JOHN VANDERMUELEN, A.B., Bryn Mawr, 1939. Financial history and an analysis of Wellesley. 1946. *Harvard*.

National Economies

Degree Conferred

- ANDREW JONAH GRAJDANZEV, Ph.D., Columbia, 1945. Modern Korea: her economic and social development under Japan. (Published by The Institute of Pacific Relations.)

Theses in Preparation

- VERNON RAFAEL ESTEVES, A. B., Puerto Rico, 1942; A.M., Harvard, 1945. Puerto Rican economy. *Harvard*.
HELMUT HIRSCH. The history of the Saar territory: a new evaluation of the first experiment in international government of a German territory. 1945. *Chicago*.
CHEN TING, B.S., Chiao Tung University, 1939; A.M., Pennsylvania, 1942; A.M., Harvard, 1944. Financing China's post-war industrialization. 1945. *Harvard*.
ABDOL AHAD YEKTA, LL.B., University of Teheran, 1915; LL.M., 1917; Licentiate in Political Science, 1916. Inflation in Iran. 1945. *Georgetown*.

Statistical Methods; Econometrics; Economic Mathematics; Accounting

Degrees Conferred

- RAYMOND CHARLES DEIN, Ph.D., Minnesota, 1945. The books of account approach to the rate base, with special reference to intangibles.
CLAUDE MALCOLM ISBISTER, Ph.D., Harvard, 1944. Theory of consumer's behavior: measurement and interrelated demands.
GUY HENDERSON ORCUTT, Ph.D., Michigan, 1945. Statistical methods and tools for finding natural laws in the field of economics.

Thesis Completed and Accepted

- WINFIELD SCOTT BRIGGS, B.S., Mississippi A. & M., 1923; M.S., Columbia, 1929. Devaluation and appreciation of fixed corporate plant from the standpoint of accounting. 1945. *Columbia*.

Theses in Preparation

- ROLAND W. FUNK, S.B., Utah, 1933. Inventory theory. 1945. *Chicago*.
HERBERT GERHARD HENEMAN, JR., B.B.A., Minnesota, 1938; M.A., 1943. Use of sampling in labor market statistics. 1946. *Minnesota*.
ALBERT EDMUND WAUGH, B.S., Massachusetts Agricultural College, 1924; M.S., Connecticut Agricultural College, 1926. Problems in measuring inequality in the distribution of personal incomes. 1945. *Chicago*.
JOHN FREDERICK WESTON, M.B.A., Chicago, 1942. The meaning and measurement of excess profits. 1945. *Chicago*.
RUFUS WIXON, B.S.C., Iowa, 1933; M.A., 1935. Accounting for transactions of corporations in their own capital stock. 1945. *Michigan*.
ELMER RICHARD YOUNG, B.S., Utah, 1936; M.S., 1937. Distribution cost accounting. 1946. *Columbia*.

Business Cycles and Fluctuations

Degrees Conferred

- MARTIN V. JONES, Ph.D., Chicago, 1944. Secular trends and idle resources. (*Journal of Business*, Studies in Business Administration, Vol. XIV, No. 4, October, 1944.)
FRANK LEROY KIDNER, Ph.D., Columbia, 1945. California business cycles. (To be published by the University of California Press.)

Theses in Preparation

- NATHAN BELFER, A.B., Harvard, 1941; P. A. Cert., Harvard, 1942. Technological change in long waves. 1946. *Harvard*.
- LORETO MARCELINO DOMINGUEZ, Public Accountant, University of Buenos Aires, 1938; M.B.A., Harvard, 1941; M.A., 1942. Business cycles in agricultural countries. *Harvard*.
- GENE LLOYD ERION, A.B., Doane, 1939; A.M., Wisconsin, 1940. Maintenance of effective demand and economic stability. 1946. *Wisconsin*.
- LEONID HURWICZ, LL.M., Warsaw, 1938. Basic postulates of the theory of economic fluctuations and their relation to empirical evidence. 1945. *Chicago*.
- ALAN L. RITTER, A.B., DePauw, 1935. A study of the flow of capital required to maintain the proper balance in our economic organization. 1946. *Wisconsin*.
- FRANK ROBERT VARON, B.S., Columbia, 1943; M.S., 1944. Feasibility of using taxation to control cyclical fluctuations. 1946. *Columbia*.

Public Finance; Fiscal Policy; Taxation*Degrees Conferred*

- WILLIAM HARRY ANDERSON, Ph.D., Wisconsin, 1945. The modernization of federal estate and gift taxes.
- SEUN-HSIN CHOU, Ph.D., Columbia, 1945. The capital levy.
- MARION HAMILTON GILLIM, Ph.D., Columbia, 1945. The incidence of excess profits taxation. (Published as No. 514 in the Columbia Studies in History, Economics, and Public Law.)
- FRANKLIN P. HALL, Ph.D., Wisconsin, 1945. The Indiana gross income tax.
- LOUIS HALPERN, Ph.D., New York, 1945. British war finance, 1939-1944; a comparative analysis.
- EDMUND ANTHONY NIGHTINGALE, Ph.D., Minnesota, 1944. Taxation in Great Britain: an economic analysis of British taxation with special reference to organization and administration of the national tax system.
- JULIUS CARL POINDEXTER, Ph.D., Virginia, 1944. Proposals for interest-free deficit financing.
- NIAN-TZU WANG, Ph.D., Harvard, 1945. Industrialization, monetary expansion and inflation.
- JOHN BOB WILLIAMS, Ph.D., Columbia, 1945. The development of local finance in Madras Presidency. (Published by Power Press, Gunta, India.)

Thesis Completed and Accepted

- HOWARD BEROLZHEIMER. The development of principles in insurance company taxation. 1943. *Yale*.

Theses in Preparation

- WILLIAM ALFRED BENTZEN, A.B., 1926, Wisconsin. An analysis of the government's easy money policy and its economic effects. *New York*.
- EUGENE CLARK, A.B., Swarthmore, 1939; A.M., Harvard, 1942. Effect of income tax exemption on the competitive position of non-profit business. 1946. *Harvard*.
- ROBERT MILLS CLARK, B.Com., British Columbia, 1941; A.B., 1942; A.M., Harvard, 1944. Canadian income tax. 1946. *Harvard*.
- JACOB COHEN, A.B., Manitoba, 1940; A.M., Cincinnati, 1941. The fundamental similarities and differences in public and private debts. 1945. *Chicago*.
- LYLE C. FITCH, B.S., Nebraska State Teachers College, 1935; A.M., Nebraska, 1938. Taxation of state and local bonds. 1946. *Columbia*.
- M. LOUISE FREIER, B.S., Simmons, 1943. Effect of corporate and progressive income taxation on risk taking. 1946. *Massachusetts Institute of Technology*.
- MARGARET M. GARRITSEN, A.B., Michigan, 1943. Some theoretical and practical problems in the management of the federal debt in the post-war period. 1946. *Massachusetts Institute of Technology*.

- RICHARD BENJAMIN GOODE, A.B., 1937; A.M., Kentucky, 1939. The corporate institution and the tax problem. *Wisconsin*.
- BYRON LINDBERG JOHNSON, B.S., Iowa State, 1940; Ph.M., Wisconsin. Federal aids to the states. 1946. *Wisconsin*.
- FRANK S. KAULBACK, JR., B.S., Virginia, 1934; M.A., 1942. The federal budgets as an instrument of fiscal control. 1945. *Virginia*.
- HERBERT ELIAS KLARMAN, A.B., Columbia, 1939; A.M., Wisconsin, 1941. The past and future of the income tax in the American states. 1946. *Wisconsin*.
- JEWELL JENS RASMUSSEN, B.S., Utah, 1934; M.S., 1936. Taxation of mineral deposits in the United States: theory and practice. 1946. *Stanford*.
- ELBA GOMEZ DEL REY, Bachillerato, Escuela Sup. de Comercio, 1932; Dr. en Diplomacia, University del Litoral, 1942; A.M., Radcliffe, 1945. Public finances of Brazil. 1945. *Harvard*.
- MICHAEL SCHIFF, B.B.A., College of the City of New York, 1936; M.B.A., 1939. State business taxation. 1946. *New York*.
- ALFRED CHIEH-CHING TAO, S.B., Tientsin University, 1934; M.B.A., Harvard, 1943; A.M., 1945. The income tax in China. 1946. *Harvard*.
- RALPH IRA THAYER, B.S., Northwestern, 1937; M.A., Washington, 1944. Recent fiscal policies in the State of Washington. 1946. *Stanford*.

Money and Banking; Short-Term Credit

Degrees Conferred

- REV. EDWARD JOHN BURNS, O.S.A., Ph.D., Catholic, 1945. Commercial banking in Philadelphia, 1915-1941. (Published by Catholic University of America Press.)
- REV. BRIAN A. KIRN, O.F.M., Ph.D., Catholic, 1945. Annual reports of commercial banks. (Published by Catholic University of America Press.)
- AKSEL EVALD NIELSEN, Ph.D., Columbia, 1945. Short-term production agricultural credit with particular reference to the Southern cotton grower.

Thesis Completed and Accepted

- ELI SHAPIRO, A.B., Brooklyn, 1936; A.M., Columbia, 1937. The credit union movement in Wisconsin. *Columbia*.

Theses in Preparation

- ARTHUR BRICKNER, M.S., Columbia, 1941. Monetary controls. 1946. *Columbia*.
- HAROLD ANDREW DULAN, B.B.A., Texas, 1936; M.B.A., 1937. The impact of war financing on member banks in the eleventh Federal Reserve district. 1945. *Texas*.
- WESLEY CLIFFORD HARALDSON, B.A., Jamestown, 1935; M.A., Iowa, 1940. Changes in the banking structure of New York City and its relative position as a banking center, 1929-1943. 1946. *Minnesota*.
- ALEX LOVERDOS, Dr. of Political Studies, Athens, 1935. Imperfections in money markets, local and international. 1947. *Columbia*.
- SHOU-HAI PU, A.B., Michigan, 1942; A.M., Harvard, 1944. Banking reform in China. 1946. *Harvard*.
- WILLIAM JOHN STIBRAVY, A.B., Columbia, 1939; A.M., 1940. The place of the central bank in the modern economy. 1946. *Columbia*.

International Trade, Finance and Economic Policy

Degrees Conferred

- GEORGE HAY BROWN, Ph.D., Chicago, 1945. The international economic position of New Zealand.
- HERMAN BURSTEIN, Ph.D., New York, 1945. Pan-American economic solidarity.
- EUGENE YOU-CHI SOONG, Ph.D., Harvard, 1945. The international monetary plans.

Theses Completed and Accepted

- ANTHONY YING CHANG KOO, A.B., St. John's, China, 1940; S.M., Illinois, 1941; A.M., Harvard, 1943. Studies in the theory of exchange equilibrium. *Harvard*.

- NICHOLAS MICHAEL PETRUZZELLI, A.B., Portland, 1937; A.M., Catholic, 1939. Some technical aspects of foreign trade statistics with special reference to valuation. *Catholic*.
- LAURENCE JOSEPH DE RYCKE, B.B.A., Oregon, 1929; M.B.A., 1931. The significance of the important supplier principle as applied in the negotiation of reciprocal trade agreement concessions. *California*.
- SAMUEL SAUL SHIPMAN, C.E., Cornell, 1919; M.B.A., New York, 1941. The outlook for Soviet-American economic relations. *New York*.

Theses in Preparation

- C. SIDNEY COTTLE, B.A., Whitman College, 1931; M.B.A., Stanford, 1934. Tariff-making under the trade agreements act. 1945. *American*.
- SERGEI PAVLOVITCH DOBROVOLSKY, Dip. Harbin, 1930. Foreign exchange control as a factor determining general levels of prices and volume of foreign trade. 1946. *Columbia*.
- GEORGE GIBBS, JR. The economic significance of the reciprocal trade agreement program to California production and trade. *California*.
- ELINOR RUTH HARRIS, A.B., Mt. Holyoke, 1944; A.M., Radcliffe, 1945. International finance, 1929-39, and the transmission of cycles. *Harvard*.
- ERNEST E. HEIMBACH, B.S., Chicago, 1928; M.S.S., New School for Social Research, 1943. Reciprocal trade policy of the U.S. with Latin America. 1946. *New School for Social Research*.
- KUANG TAI HU, B. Com., Nankai, 1939; A.M., Wisconsin, 1941; M.B.A., Harvard, 1943; A.M., Harvard, 1944. International economic problems of China. 1946. *Harvard*.
- JACK LETICHE, A.B., McGill, 1940; A.M., 1941. Foreign exchange control in post-war monetary stabilization: imperfect competition in international trade. 1945. *Chicago*.
- YVES ROBERT MARONI, A.M., Virginia, 1941; A.M., Harvard, 1943. International trade under monopolistic competition. 1945. *Harvard*.
- LEONARD L. MINTHORNE, A.B., Southern California, 1919; A.M., Columbia, 1922. The Inter-American highway—its economic aspects. 1946. *Columbia*.
- WILLIAM BREMAN PALMER, A.B., Michigan, 1929; A.M., 1930. Studies in theory of foreign exchange rates. 1946. *Michigan*.
- FRANCISCO R. SAENZ, B.S., Columbia, 1942. Monetary policy and exchange stabilization. 1945. *Columbia*.
- FRANCIS XAVIER SCAFURO, B.S., New York, 1934; M.B.A., 1937. Latin-American industrialization—its effect on exports of American goods and capital. 1946. *New York*.
- MOTHEER DEAN ELIZABETH TRAYNOR, R.S.C.J., A.B., Barat College, 1937; A.M., Marquette, 1942. International monetary and financial conferences, 1900-1945. 1946. *Catholic*.
- STANLEY SZU-YEE TSOU, B.S., California, 1943. The tea import trade of the United States. 1946. *Harvard*.
- SECH-CHAU WONG, B.S.C., National Chi-nan University, 1937; A.M., Michigan, 1941. China as an outlet for American capital. *New York*.
- YUNG-SHUN WU, A.B., Customs College, China, 1935; A.M., Wisconsin, 1943. International tin control. 1946. *Wisconsin*.

Business Finance; Insurance; Investments, Securities Markets

Theses in Preparation

- LAURENCE J. ACKERMAN, A.B., Lehigh, 1929; LL.B., Columbia, 1932. The regulation of casualty insurance. 1946. *Pennsylvania*.
- SIDNEY STUART ALEXANDER, B.S., Harvard, 1936; A.M., Harvard, 1938. Financial structure of American corporations, 1903-1937. 1945. *Harvard*.
- FRANCIS T. ALLEN, B.S., Pennsylvania, 1922; M.A., 1930. The rehabilitation or liquidation of insurance companies. 1946. *Pennsylvania*.
- MARY RAY BURNS, A.B., Minnesota, 1916. A comparative study of four recent railroad reorganizations: Great Western, Milwaukee, Northwestern and Soo. 1946. *Minnesota*.
- T. EMERSON CAMMACK, B.S., Oklahoma, 1940; M.A., 1941. The rehabilitation of life insurance companies. 1946. *Pennsylvania*.

- WILLIAM HERBERT CHILDS, A.B., Morningside, 1927; A.M., Michigan, 1935. Consolidated financial statements. 1945. *Columbia*.
- ACIS JENKINSON, 3RD, B.S., Pennsylvania, 1935; M.A., 1937. Factors involved in measuring the amount of life insurance to be carried on the life of an individual for business purposes. 1946. *Pennsylvania*.
- RICHARD DE R. KIP, B.S., Pennsylvania, 1936. Do the educational efforts of academic institutions and insurance companies in America at present meet the needs of those going into business and into the insurance business? 1946. *Pennsylvania*.
- JAMES G. LYNE, A.B., Kansas, 1920. The need of the railways for additional fixed-plant capital and possible means of its attainment. 1946. *New York*.
- DAN M. MCGILL, B.A., Maryville, 1940; M.A., Vanderbilt, 1941. National service life insurance. 1947. *Pennsylvania*.
- DONALD SCOLE, B.S., Northwestern, 1916; M.A., Pennsylvania, 1943. Development and application of the annuity principle by United States legal reserve life insurance companies. 1945. *Pennsylvania*.
- PING-HOU WANG, A.B., Tsing-hua College, 1932; A.M., Columbia, 1941. Fair return on equity capital. 1946. *Columbia*.
- ALFRED C. WILT, B.S., Pennsylvania, 1925. A study of workmen's compensation carriers in Pennsylvania. 1946. *Pennsylvania*.

Public Control of Business; Public Administration; National Defense and War

Degrees Conferred

- LEO FISHMAN, Ph.D., New York, 1945. British wartime controls of selected nonferrous metals, 1939-1941.
- ORME WHEELLOCK PHELPS, Ph.D., Chicago, 1945. A case study in public personnel administration.

Thesis Completed and Accepted

- WILLIAM A. NIELANDER, B.S., Pittsburgh, 1930; M.S., Columbia, 1931. Wartime food rationing in the United States.

Theses in Preparation

- KARL ADOLF BOEDECKER, Ph.B., Wisconsin, 1937; A.M., Wisconsin, 1940. A critical appraisal of the antitrust policy of the United States government 1933-1945. 1945. *Wisconsin*.
- GUSTAV DREWS, LL.B., 1917, Brooklyn Law School; J.D., 1932; B.S., New York, 1930; A.M., 1941. The position of the patent right in a national economy. *New York*.
- JAMES M. GWIN, B.S., Connecticut State College, 1931; M.A., American, 1941. An economic analysis of the methods used by the United States Army in securing and distributing its perishable food. *American*.
- FRANCIS ROYAL KENNEY, B.S., Michigan State, 1914; A.M., Southern California, 1932. The control of copper during the Second World War. 1945. *Georgetown*.
- ALBERT M. LEVERT, B.A., Stanislaus, 1913; LL.B., New York, 1923; LL.M., 1924. The influence of the economic theories of free competition and monopoly upon the legal regulation of industry in the United States. 1946. *New School for Social Research*.
- SAMUEL LURIÉ, Ingénieur Chimiste, Université de Gand, 1927. Private investment and government economic controls in Germany, 1933-1939. 1946. *Columbia*.
- ELIZABETH MARIE ROSENGREN, A.B., University of Alberta, 1940; A.M., University of Toronto, 1942. Wartime controls in Canada. 1947. *Columbia*.
- JAMES RUSSELL STRAHAN, B.A., Earlham, 1937; M.A., Fletcher School, Tufts, 1938. The status of foreign-owned public property in the courts of the United States. 1946. *American*.

FRANK HATHAWAY TOWSLEY, A.B., Tufts, 1913; LL.B., George Washington, 1919; LL.B., Columbia University Law School, 1920. The court as a coordinate part of the regulative process. 1946. *Columbia*.

MELVILLE J. ULMER, B.S., New York, 1937; M.A., 1938. Free enterprise and price control. 1946. *Columbia*.

Industrial Organization; Price and Production Policies; Business Methods *Degree Conferred*

IRA DENNIS ANDERSON, Ph.D., Northwestern, 1944. Direct control of retail prices, with particular reference to the furniture-store field.

Theses in Preparation

GLADYS E. BRAMS, A.B., Hunter, 1936; A.M., Columbia, 1943. The changing legal concept of price discrimination. 1946. *Columbia*.

CHARLES T. BRODERICK, B.A., Fordham, 1932; M.A., 1940. Price patterns in the reconversion period. 1946. *Fordham*.

MORRIS FORKOSCH, LL.B., St. John's, 1930; LL.M., 1932; A.B., New York, 1936; A.M., 1938. The liquor industry. *New York*.

WALTER E. HOADLEY, JR., A.B., California, 1938; M.A., 1940. Pricing and competition in the marketing of petroleum products: a comparison of the Midwest and Pacific Coast areas. 1946. *California*.

RIDGEWAY HOEGSTEDT, A.B., California, 1929; A.M., 1933. Cost of production and price policy. 1946. *Columbia*.

EDWIN HUGHES, A.B., Williams, 1919; A.M., 1934. The St. Paul reorganization. 1946. *Columbia*.

WALTER KLUCKAUF, Dr. of Civil Law, Prague, 1927. The international sugar cartel. 1946. *Columbia*.

CHARLOTTE FELDMAN MULLER, A.B., Vassar, 1941; A.M., Columbia, 1942. Paydirt: the story of light metals monopoly. 1945. *Columbia*.

ALFRED NICOLS, A.B., California, 1941; A.M., Harvard, 1944. Monopolistic restriction in the depression. 1945. *Harvard*.

DANIEL CARLSON VANDERMUELEN, A.B., Hamilton, 1936. Factors affecting the rate of technological change in the sulphate pulp and paper industry. 1946. *Harvard*.

Marketing; Domestic Trade

Degrees Conferred

EDNA MAY DOUGLAS, Ph.D., North Carolina, 1945. An analysis of the retail trading area of Charlotte, North Carolina.

ALFRED GROSS, Ph.D., New York, 1945. The marketing of household furniture.

VILHO OLAVI JARVINEN, D.C.S., New York, 1945. Supermarkets or self-service food stores in the United States.

GREGORY BURTON WOOD, Ph.D., Wisconsin, 1945. The marketing of Wisconsin eggs.

Theses in Preparation

RAYMOND GEORGE BRESSLER, JR., S.B., Pennsylvania State, 1932; B.S., Rhode Island State, 1933; A.M., Connecticut, 1936; A.M., Harvard, 1945. Efficiency of milk marketing. *Harvard*.

RONALD C. CALLENDER, B.S., New York, 1933; M.B.A., Texas, 1936. Historical development and analysis of risks in hedging cotton. 1945. *American*.

CARL CLARK, S.B., Oklahoma Agricultural and Mechanical College, 1928; S.M., 1929. The marketing of tobacco through the loose leaf auction system. 1946. *Wisconsin*.

HAROLD E. HARDY, B.A., Pomona, 1925. The integration of manufacturing and chain-store distribution. 1945. *Minnesota*.

- FREDERICK W. SHORT, B.A., MacMasters, 1943; M.S., Minnesota, 1944. Marketing of fruit with special reference to the Niagara Peninsula. 1945. *Minnesota*.
 A. MAXWELL ULE, M.B.A., Chicago, 1937. An empirical study in maximizing the productivity of advertising appropriation. 1945. *Chicago*.

Mining; Manufacturing; Construction

Theses in Preparation

- L. GREGORY HINES, B.A., Kansas, 1938; M.A., Minnesota, 1942. The economics of the Great Lakes iron ore industry. 1946. *Minnesota*.
 GEORGE HENRY HOBART, A.B., Michigan, 1908; A.M., North Carolina, 1941. The pottery industry in the United States. 1946. *North Carolina*.

Transportation; Communication; Public Utilities

Degree Conferred

- CHARLES V. KINTNER, Ph.D., Chicago, 1945. The effect of the business cycle on the newspaper publishing industry.

Thesis Completed and Accepted

- WILLIAM NORRIS LEONARD, A.B., Virginia, 1936; A.M., Texas, 1938. The failure of railroad consolidation under the Transportation act of 1920. *Columbia*.

Theses in Preparation

- EARL W. CARLSEN, B.A., Idaho, 1935; M.A., Minnesota, 1940. Certificates of public convenience and necessity in the field of air transportation. 1946. *Stanford*.
 JOHN P. CARTER, A.B., Columbia, 1936. Transportation rates and their relation to the location of production. 1946. *California*.
 HENRY HERZ, B.S., New York, 1936; M.B.A., 1939. The design of classified rates for public utilities services. 1946. *New York*.
 SAMUEL S. HILL, JR., B.A., Yale, 1923; M.B.A., New York, 1939. Cost finding in transport regulation. 1946. *American*.
 THEODORE H. HOFFMAN, B.S., Dayton; M.A., American, 1938. History of the development of railroads in Colombia. 1945. *American*.
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- SOPHIE CAMBRIA, Ph.D., Bryn Mawr, 1945. Youth in the Philadelphia labor market: a study of the vocational problems of young workers and related vocational services.
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Labor economics, industrial management: Man, 44, Ph.D., 1931, University of Wisconsin. University teaching experience; research and general experience in business and government agencies. Lecturer in the evening session of a large college and director of education in a commercial organization; on leave to teach in Army University Studies Center, England. Available, February, 1946. E116

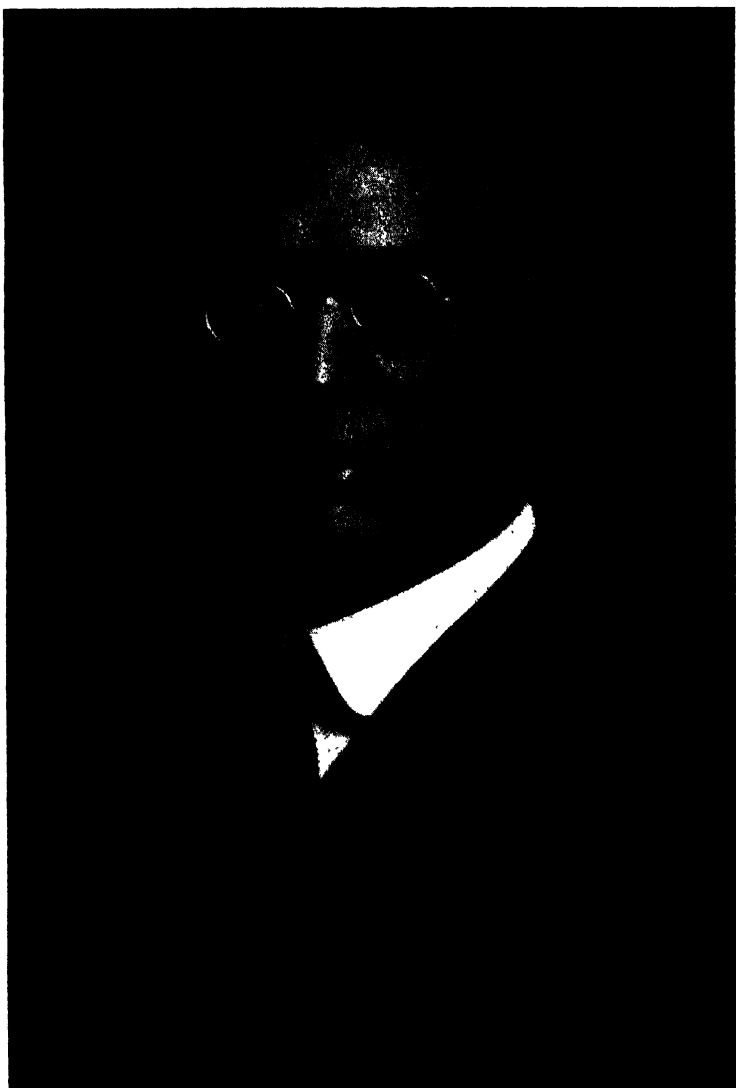
Money and banking, business cycles, international trade and finance, corporation finance, economic theory, statistics: Man, 43, married, Ph.D., Harvard. Seventeen years of experience teaching economics in American colleges; also experience in banking and government service; publications; employed as head of department in small college but desires position with greater academic opportunities. Available in July, 1946. E133

Theory, finance, public control of business, public utilities, labor, consumption: Man, 57, married, A.B., Wisconsin, M.A., Kansas, plus law training. Five years of economics and political science teaching and research in universities; 6 years of public administration and research; 2 years of newspaper editorial work; business and civic-commercial organization experience; publications. Desires university or college teaching or research position. Available immediately. E190

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THE INTEREST RATE AND INVESTMENT IN A DYNAMIC ECONOMY

By FRIEDRICH A. LUTZ*

Those who are responsible for making investment decisions frequently ~~deny that those decisions are affected by the level of the interest rate. Before the war a group of Oxford economists interviewed a number of business men concerning the effect of the interest rate on investments, and the results of the inquiry have been summed up as follows: "The majority deny that their activities have been, or are likely to be, directly affected in any way by changes in interest rates. Of those who take the view that they might sometimes be affected, few suggest that the influence is an important one."~~

~~Economists and monetary authorities, on the other hand, at least throughout the nineteenth and the first three decades of the twentieth century, regarded interest policy as an effective instrument by which the volume of investment could be contracted or expanded. Even today this view has not been abandoned, although the emphasis has definitely shifted away from interest policy toward variations in public expenditures. The British White Paper on *Employment Policy*, issued in May, 1944, explains the effect of interest rate policy on investments in the "orthodox" fashion. "If the cost of borrowing money is high, some projects which are not profitable at that rate will be held back. When it falls again, those projects will be brought forward and others will also be taken in hand." Nevertheless, the paper does not lay primary emphasis on interest rate policy. While it keeps "the possibility of influencing capital expenditures by the variation of interest rates . . . in view," it relies much more on public expenditures as a means of regulating investment and employment.~~

* The author is associate professor of economics at Princeton University, at present on leave of absence. He is a member of the Institute for Advanced Study, Princeton.

¹ H. D. Henderson, "The Significance of the Rate of Interest," *Oxford Econ. Papers*, No. I, October, 1938, p. 9.

The divergence of opinion between those who try to prove analytically that the level of interest rates must affect investment, and those who maintain that in practice the effect is negligible may simply be due to differences in the assumptions from which they are proceeding. Even if it can be demonstrated in strict theory that, under the assumption of other things being equal, a change in the interest rate will have an effect on investment, it may still be true that the effect will not visibly manifest itself in a dynamic world where other things are not equal. These "other things" may be so important that they submerge the effect which the interest rate can be shown to have under static assumptions.

This article is an attempt to show the effects of introducing dynamic elements into the theory. It is not claimed that their introduction will enable us to give a full explanation of investment decisions; for into every such decision there enter factors which are not capable of generalization and therefore of theoretical treatment. Nonetheless a considerably more realistic explanation than that given by static theory is possible once account is taken of certain major dynamic forces.

In what follows we shall examine the effect of a change in the interest rate (and by change we mean a change within the limits of, say, two per cent, e.g., from five to three per cent or vice versa) under four heads: the effect on (I) the holdings of inventories (variable capital), (II) the use of durable producers' goods, and (III) the use of durable consumers' goods, among which the most important item is houses. Section IV contains some remarks on the area of influence of the interest rate, and on the effect of changing interest rates on the behavior of financial institutions.

I. Inventories

Hawtrey's well-known theory of the influence of the interest rate on inventories in the hands of wholesalers is a convenient starting point for the discussion of the first problem mentioned above. The wholesaler, Hawtrey says, "makes his profit out of the difference between the price at which he buys and the price at which he sells, and the set-off against his gross profit for insurance, rent, wages, etc., is quite small compared to the whole value of the goods. The set-off on account of interest is therefore by no means unimportant."² Since such parts of the inventories as are held with borrowed money give rise to interest payments, "a sudden jump in a half year's interest from two to three and a half per cent may well make a merchant hesitate to order a

²R. G. Hawtrey, "Currency and Credit" (London, Longmans Green, 1930), p. 25.

fresh consignment." In consequence the manufacturer will find that fewer orders are coming in and he will cut down production.

Hawtrey's argument requires some elaboration before it can be examined more closely. Suppose that the goods in which a wholesaler trades remain in his storage room for three months on the average and that he finances his purchases by borrowing on three months' credit. His variable costs include the interest charge for three months. Assuming that the costs of additional units of output (sales) increase as his output increases (*i.e.*, that the marginal cost curve is rising), he will push his sales to the point where marginal revenue equals marginal cost. If the interest rate is now raised, the marginal cost curve, of which the interest charge for three months is an element, will be raised correspondingly. In strict theory we must then suppose that the entrepreneur will reduce his output (and, in an imperfect market, raise the price) so that at the new point of equilibrium the marginal revenue again covers marginal cost.

This argument, though logically correct, omits several significant factors:

1. Although the trader's profit will be reduced when the interest rate rises, it is unlikely, particularly if he considers the rise in the short-term interest rate to be temporary, that he will at once cut down sales (and raise the price). This is true for two reasons: first, he may have no clear notion of the shape of his cost (and demand) curve, and thus may not be aware that if he reduces his sales the fall in his profits will be less than if the old volume of sales is maintained. Secondly, and this is a more important point, even if he is aware of this fact, the necessity of keeping the good will of his customers may be a stronger consideration than his (probably slight) loss in profits. Over a longer period of time such a policy may result in higher profits than a policy of trying to maximize profits over the short period.

If he does not reduce his sales when the interest rate rises, he is not likely to reduce his inventory either; he knows by experience that a certain volume of sales requires a certain inventory level. Such changes in the ratio of inventories to sales as occur in practice are the result of "speculative" purchases of inventory due to price fluctuations, or of long-run improvements in merchandising technique, or of sudden changes in sales. During the cycle the movement of inventories follows the movement of sales, which suggests that the latter is the dominant factor influencing the former.

2. The trader may finance his business predominantly with his own capital, in which case he will not "feel" a rise in the interest rate as forcibly as he would if he depended on bank credit. If, for example,

only one-tenth of his inventory is financed by bank debts, a change in the interest rate by as much as two per cent will have a negligible effect on his cost calculations.³

Even before the present war and as far back as the twenties, wholesalers in the United States were not greatly indebted to the banks. Examination of a sample⁴ of 27 large trade corporations owning 27 per cent of the total assets of all large trade corporations shows that in 1929 the bank debts of the whole sample amounted to only 9.7 per cent of the inventories. All through the thirties the ratio was still lower.

3. Increases in interest rates commonly occur in periods when prices are rising and are expected to go on rising, and reductions in interest rates when prices are falling and are expected to go on falling. In such situations interest policy will not be the dominant influence. If, for instance, a trader expects prices to rise by one per cent over three months, an increase in the interest rate by as much as two per cent will not prevent him from increasing his inventory. The effect of an expected price rise in inducing an increase in inventories will, as a rule, be stronger than the effect (if any) of a rise in the interest rate in causing a decrease.

II. *Durable Producers' Goods*

We turn now to the influence of the interest rate on the use of fixed equipment in the manufacturing process. In order to determine whether it is profitable to invest in a certain machine, the entrepreneur has to compare the present value of the revenue imputable to that machine with the costs of the machine. The result of this comparison is influenced by the level of the interest rate in two ways: (1) inasmuch as interest enters into the construction costs of the machine, a fall (rise) in the interest rate lowers (raises) its cost. Since, however, interest is a very small part of the costs of construction, this effect is negligible. (2) Inasmuch as the interest rate is used as a capitalization factor, a fall (rise) in the rate will raise (lower) the present value of the revenue from the machine.⁵

³ We are here proceeding on the assumption that in practice business firms calculate with average and not marginal costs.

⁴ The sample was collected under the Financial Research Program of the National Bureau of Economic Research.

⁵ In using the capitalization procedure, account has to be taken, of course, of the risk factor. If future revenues are capitalized with the market rate of interest (or the rate which the entrepreneur pays on his debts where this rate differs from the market rate), the risk factor must be taken into account by an appropriate treatment of the entrepreneur's expectations regarding the future revenue stream from the machine. Before this revenue stream is capitalized, the most probable value for the revenue expected for each year during the lifetime of the machine must be "corrected" with a factor expressing the risk which, in the entrepreneur's opinion, attaches to it. The capitalization procedure adopted in practice will be discussed later.

It should be observed that the influence which the interest rate exerts as a capitalization factor is identical with the influence which it exerts as an element in the cost of using the machine. If an entrepreneur capitalizes the stream of revenues imputable to a machine (*i.e.*, the gross revenues minus the operating expenses⁶), he obtains a figure equal to the sum of money which, if he invested it in the capital market, would at the end of a period equal in length to the lifetime of the machine, have "grown into" the same sum of money as he accumulates by investing in, and operating, the machine. If the present value of the revenue happens to equal the cost of the machine, this means that, if he took all the units of revenue obtained from the machine over its lifetime and invested them, as they accrued, in the capital market at compound interest, he would at the end have a sum equal to the capital sum originally invested in the machine plus the accumulated interest which he could have obtained by investing that sum in the capital market for the same length of time. Assuming that he paid all of the accumulated interest charges in a lump sum at the end of the lifetime of the machine, he would have just enough to pay the creditors what he owes them (both principal and interest). Alternatively, if he applied the revenue obtained from the machine each year to the reduction of his debt, by the time the machine's life was at an end he would have paid to the creditors the principal of the debt plus the interest rate calculated on a gradually declining principal. If the present value of the revenue is above the cost of the machine, the entrepreneur will, of course, earn more than the interest on the invested capital, and vice versa if the present value is below the cost.

It is clear then that the costs of using the machine (in the form of interest payments to the creditors) have been taken care of by the comparison of the capitalized revenue imputable to the machine with the initial costs of that machine. There is, therefore, no sense in saying for example that the interest rate is negligible as a factor in the costs of using the machine, but is of considerable importance as a capitalization factor. Such statements are, however, sometimes made.⁷

We are now ready to proceed with the analysis of the influence of

⁶ The term operating expenses is here used in the narrower sense, excluding depreciation and interest charges.

⁷ In an otherwise very informative article ("The Risk of Obsolescence and the Importance of the Rate of Interest," *Jour. Pol. Econ.*, Vol. LI, No. 4 [Aug., 1943], pp. 349-55), M. Moonitz first discusses the interest rate as a cost factor, by which he means the costs not of constructing, but of using a machine. He then proceeds to discuss interest as a capitalization factor. He says: "In addition to measuring one element in costs, the rate of interest serves as a capitalization factor"; and he concludes: "Even though interest is not of great importance as a cost factor, the role of the interest rate as a capitalization factor would seem capable of restoring it to a position of prominence" (p. 354).

a change in the interest rate on investments in the manufacturing process.

A. *Horizontal Expansion and Contraction*

According to static economic theory a fall in the interest rate induces an expansion of fixed equipment and a rise a contraction. In this subsection we shall assume (unless the contrary is expressly stated) that the expansion is of the horizontal (parallel) type, i.e., that the entrepreneurs add new machines of the same type as those already in use. Correspondingly, a contraction means that replacements are not fully made. We are not here going to consider the case where alternative techniques are available and the problem of substitution arises. This will be dealt with below.

In competitive equilibrium the present value of the revenue (gross revenue minus operating expenses) obtainable from the "marginal" machine of any type used by a firm must just equal its cost.⁸ If now the interest rate falls, the present value (V) of the revenue stream obtainable from each type of machine will rise, thus raising the present value of the profit ($V-C$, where C stands for the cost of the machine) on each type of machine. This will induce the entrepreneur to increase the number of machines. Conversely, if the interest rate rises, he will fail to make replacements.

By how much the present value of the profit will rise as a result of the fall in the interest rate depends on two factors: (a) *the length of the revenue stream* (or, alternatively, the lifetime of the machine), since the more distant the revenues are, the more is their present value affected by a change in the interest rate; and (b) *the breadth of the revenue stream*. The present value of a broad revenue stream over a given period of time will obviously rise more in absolute terms as a result of a fall in the interest rate than the present value of a narrow revenue stream. Thus the broader and longer the revenue stream imputable to a machine, the greater will be the incentive to expand in a horizontal direction if the interest rate falls,⁹ and, conversely, if the interest rate rises.

It should, however, be noticed that the breadth of the revenue stream will be irrelevant if the rate of profit over cost ($\frac{V}{C}$) is maxi-

⁸This presupposes that the revenue imputable to a machine can always be separated out of the total revenue stream which is not always the case.

⁹If we start from a static equilibrium situation, a horizontal expansion of all the firms is of course impossible. Those firms for which $V-C$ rises most will expand at the expense of those for which $V-C$ rises least. This result will be brought about by a rise in the prices of the productive factors in a way which need not be analyzed here.

mized, instead of the present value of total profits ($V-C$).¹⁰ Consider the case of two machines A and B which have the same lifetime but where the annual revenue from A is greater than that from B. Suppose that, at a given interest rate, the present value of the revenue stream of each of the two machines equals the cost of that machine; in order for this to be so machine A must obviously be correspondingly more expensive than machine B. If the revenue streams are now capitalized with a lower interest rate than before, the rate of profit over cost ($\frac{V}{C}$) will rise in the same proportion for both machines.¹¹ Thus if we assume that entrepreneurs attempt to maximize $\frac{V}{C}$ instead of $V-C$, the incentive to expand will be no greater for one who uses the higher-priced machine than for one who uses the lower-priced machine. It can be argued¹² on purely theoretical grounds that the entrepreneur should aim at maximizing $V-C$, but it is doubtful whether in practice he does so. The formulas actually in use for calculating the expected profitability of machines are usually based on the assumption that $\frac{V}{C}$ is to be maximized.

The next step in our argument is to drop the assumption of "other things being equal." In a dynamic world a large part of industrial equipment is subject to obsolescence. Entrepreneurs customarily allow for the possibility of obsolescence by basing their calculations of profitability on a much lower figure for the expected lifetime of the machine than would correspond to a lifetime calculated on a wear-and-tear basis only. Or, to adopt the phraseology commonly used in business, they calculate that the machine, in order to be installed, must promise to "pay for itself" within a relatively short period, which, in many cases, turns out to be shorter than the actual lifetime. According to L. P. Alford, replies to a questionnaire sent out to business men in the late twenties showed that 97.4 per cent of all those questioned considered it necessary that the initial investment in machines should be returned in five years or less; 61.4 per cent set a limit of

¹⁰ I have discussed differences arising from the application of these two criteria in an article entitled "The Criterion of Maximum Profits in the Theory of Investment," *Quart. Jour. Econ.*, Vol. LX, No. 1 (Nov., 1945).

¹¹ At least this is the case if we assume that the time shape of the revenue stream is the same for the two machines. The statement in the text does not apply to the case of machines which give rise to revenue streams of different lengths. If, at a given interest rate, the V 's obtainable from two machines with different lifetimes equal the respective C 's, a fall in the interest rate will raise the V for the machine with the longer lifetime relatively more than the V for the machine with the shorter lifetime.

¹² As I have done in the article cited above.

three years or less.¹³ This seems to be the common practice for machines which are subject to obsolescence. Translated into our terms this means that, for such machines, only if the capitalized revenue for five or three years exceeds or equals the price of the machine will it be introduced. A fall in the interest rate by one or two per cent will raise the present value of a revenue stream spread over three or even five years by very little, and its effect is therefore likely to be counterbalanced by other forces influencing the entrepreneur's investment decision.

One of these forces is the change in expectations about the future revenue imputable to the machine. The entrepreneur may anticipate that the physical output or the selling price is going to rise or fall. The greater the expected output stream per year and the higher the expected price, the greater will be the present value of the revenue stream which is to be compared with the cost of the machine. The effect of changes in anticipations about the breadth of the output stream and the price of the output are likely, in the case of short-lived machines, to be much more potent forces than changes in the interest rate. For instance, if the revenue imputable to a machine is expected to be \$800 a year for five years, the present value of this revenue at 3 per cent will be \$3,663. Suppose that this present value (at 3 per cent) is just equal to the cost of the machine. A rise in the interest rate to 5 per cent would cause the present value of the revenue to fall below the cost of the machine by \$200. If, however, the entrepreneur anticipated an increase of 3 per cent a year in the revenue stream, starting in the second year, the effect of this on the present value of the revenue stream would be sufficient to counterbalance the effect of the rise in the interest rate.¹⁴

The case is different for capital goods of long durability, such as railway equipment, blast furnaces, ships, etc. First, as was pointed out before, the longer (and broader) the revenue stream imputable to capital goods, the greater is the effect of a change in the interest rate on the present value of that revenue stream. Secondly, whereas in the case of short-lived machines an entrepreneur may, in a period of cyclical upswing, anticipate that the output or the prices will be continually rising during the machine's lifetime, in the case of a capital good which is expected to last through a whole business cycle or longer, he is not likely to base his calculation on increasing output or increasing prices over the whole lifetime of the capital good (unless

¹³ L. P. Alford, *Technical Changes in Manufacturing Industries*, Recent Economic Changes, I. (New York, 1929), p. 139. See also the newer material in L. P. Alford (editor), *Cost and Production Handbook* (New York, Ronald Press, 1942), p. 774.

¹⁴ The present value of a revenue stream which starts at \$800 and increases by three per cent annually from the second year on is, at five per cent, \$3,668.

he expects a rising price or output trend). Though he may anticipate rising revenues in the more immediate future, he must allow for the possibility that at some later date during the lifetime of the equipment the reverse movement will set in. The same applies *mutatis mutandis* to the case of an initial fall in revenues in a period of cyclical downswing. Expectations of changes in prices and output are, therefore, much less likely, in the case of long-lived equipment, to counterbalance the influence of a change in the interest rate on profit calculations.

The expectation of changes in the future revenue stream from a machine due to price and output changes is not the only force capable of counteracting the influence of the interest rate. In most branches of manufacturing there is a constant stream of technical inventions.¹⁵ Their effect is to widen the gaps between the costs of the capital goods and the capitalized revenue imputable to them, or to create such gaps where none existed before. It seems improbable that a rise in the interest rate within the usual limits will act as an effective check on an expansion of investment induced by technical inventions.¹⁶ The rate of technical progress, and therefore the importance of inventions, is probably smaller for public utilities than for most manufacturing industries.

Capital

B. The Substitution of Capital for Labor

According to static economic theory a fall in the interest rate, by cheapening capital in relation to labor, will induce entrepreneurs to substitute more capitalistic methods for less capitalistic methods (This proposition presupposes that the entrepreneur has a choice between a large number of methods each of which differs from the "next" less capitalistic one by the use of slightly more capital and slightly less labor, *i.e.*, that there is a continuous series of alternative methods. This assumption is not realistic. We come nearer to the truth if we assume there are wide gaps in the series, so that the entrepreneur has a choice only between a few methods of production. In this case, the conclusion that a fall in the interest rate will lead to the introduction of a more capitalistic method is not necessarily warranted.

¹⁵ It is for this reason, of course, that entrepreneurs expect a large part of their machines to become obsolete in a relatively short time.

¹⁶ It is not possible to deal fully with this aspect of the problem here. A brief reference may, however, be made to the conditions under which it pays to replace an old machine by a new one. If the profitability of the new machine is estimated by the capitalization procedure, the conditions may be formulated as follows: It pays to discard the old machine as soon as the difference between its revenue and operating expenses falls short of the interest on its own scrap value plus the interest on the present value of the profits ($V-C$) on the new machine. (See G. Preinreich, "The Economic Life of Industrial Equipment," *Econometrica*, Vol. 8, No. 1 [Jan., 1940], pp. 15 ff.)

Consider two machines A and B. The operation of each produces the same output stream per unit of time over the same period until the machine is worn out. Machine B is more expensive (requires a greater initial investment), but the operating expenses connected with it are smaller than those connected with machine A (*i.e.*, the wage bill is smaller per unit of time). The revenue per unit of time which is imputable to machine A is, therefore, smaller than that imputable to B.

Suppose that the application of the capitalization formula shows that at the higher of two interest rates the cheaper machine is the more profitable. What are the conditions which must be fulfilled if, at a lower rate, the more expensive machine is to be the more profitable? If the interest rate falls, the present value (V) of the revenue imputable to both machines will rise, that of machine B more so than that of machine A. The present value of the profit on machine B (if there was one at the higher interest rate) will therefore rise more than that on machine A, since the cost (C) of each machine is the same as it was before. But in order for the present value of the profit on machine B to exceed that on machine A at the new (lower) rate of interest, the former must rise by more than the difference which existed between the present values of their profits at the old higher rate of interest plus the increase in the present value of the profit on machine A which results from the fall in the rate. Since the present value of the profit is found by deducting the cost of the machine from the capitalized revenue, the outcome must obviously depend on the relative costs of the machines. We can indicate the range within which the cost of machine B must lie, given the cost of machine A, in order for a fall in the interest rate to render machine B more profitable than machine A by the formula:

$$V_{BH} - (V_{AH} - C_A) < C_B < V_{BL} - (V_{AL} - C_A)$$

where V_{BH} and V_{BL} are the present values of the revenue obtainable from machine B at the higher and lower interest rates respectively, V_{AH} and V_{AL} the present values of the revenue obtainable from machine A at the higher and lower interest rates respectively, and C_A and C_B are the costs of machines A and B. If C_B is below $V_{BH} - (V_{AH} - C_A)$, machine B will be more profitable than machine A both at the lower and at the higher interest rate. If C_B is within the range indicated by the formula, machine B will be more profitable than machine A, if the lower of the two interest rates prevails, and less profitable if the higher rate prevails. If C_B is above $V_{BL} - (V_{AL} - C_A)$, machine A will be more profitable than B at both interest rates. Thus only if the price of the higher priced ma-

chine happens to fall within a certain range can the lower interest rate induce investment in it.

The following table gives an arithmetical example:

	Costs	Durability (years)	Revenue im- putable to the machine per year	Present value of revenue		Present value of profits	
				at 5%	at 3%	at 5%	at 3%
Machine A	\$3,000	5	\$ 800	\$3,463	\$3,663	\$463	\$663
Machine B	\$3,900	5	\$1,000	\$4,329	\$4,580	\$429	\$680

If machine B costs \$3,900, it is more profitable than machine A at three per cent and less profitable at five per cent. At any price below \$3,866 (\$4,329 minus \$463), B is more profitable than A at both interest rates. At a price for B above \$3,917 (\$4,580 minus \$663), B is less profitable than A at both interest rates.

The greater the durability and the greater the revenue per unit period of machine B, the more likely is it that a fall in the interest rate will cause it to be substituted for machine A; for the longer and broader the revenue stream attributable to B, the greater will be $V_{BL} - (V_{AL} - C_A)$. A fall in the interest rate is, therefore, most likely to affect those industries with equipment of long durability and a high ratio of machine costs to operating expenses. Public utilities and railways are thus more likely to react to a fall in the interest rate by shifting to more expensive equipment than is manufacturing industry. The electrification of a railway system, for instance, may be rendered profitable by a reduction in the interest costs.

C. Methods Used in Practice for Estimating the Profitability of Investments

Although the capitalization formula, on which the preceding analysis has been based, is frequently used in practice (particularly for estimating the profitability of equipment of long durability), it is less widely used than what may be called the "unit cost formula."¹⁷ Of the latter there are two main variants.

In both variants the average annual gross revenue (the yearly average of the undiscounted future revenues) is estimated. The annual costs are estimated similarly. In variant I of the formula the annual costs include (in addition to the costs of labor and material, upkeep, maintenance, depreciation, taxes, etc.) interest on half the original

¹⁷ Information on the methods of calculating the expected profitability of machines is contained in L. P. Alford (editor), *Cost and Production Handbook* (New York, Ronald Press, 1942); W. Rautenstrauch, *The Economics of Business Enterprise* (New York, Wiley, 1939); E. L. Grant, *Principles of Engineering Economy* (New York, Ronald Press, 1930).

investment in the machine, the assumption being that on the average the equipment is half worn out, *i.e.*, that its average unexpired (or book) value is half its original cost. The annual costs are then compared with the annual revenue; if the latter exceeds the former the investment in the machine is considered to earn more than the interest rate. In variant II, interest is excluded from the estimated costs. The difference between annual revenue and annual cost is then expressed as a rate of profit on the original investment, and this rate can be compared with the interest rate. The two variants of the unit cost formula are less accurate than the capitalization formula; in all three formulas, however, interest enters as an element in the calculation.

The "interest" factor which is used in all these formulas is in practice usually not identical with, but higher than, the long-term interest rate in the market, the difference being an allowance for the risk involved in the investment. This would be immaterial in the present context provided the interest factor used followed the movement of the interest rate in the market. Many companies, however, base their calculations on some "normal" rate of return which is considered appropriate to their industry, a rate which is independent of the movement of the long-term market rate. In this case fluctuations in the latter do not affect their investments at all. This is probably the explanation behind the statement made by Henderson in the article referred to that "frequently in response to our questions, the methods of calculation actually employed in weighing projects of capital expenditures were precisely explained; and they were such as to disregard altogether variations in interest rates."

It is unfortunately impossible to judge how widespread is the custom of calculating with a standard rate of "interest" which is independent of the level of the market rate. It seems reasonable to suppose that the practice is likely to be particularly widespread among companies which, because their interest payments are of negligible magnitude, are not sensitive to changes in the interest rate. The importance of interest payments in a company's finances will depend on (1) the use which is made of long-term debts as a method of financing, and (2) the ratio of machine costs to operating expenses.¹⁸ A study of the income statements of a representative sample¹⁹ of 84 large manufacturing corporations owning 45 per cent of the total assets of all large manufacturing corporations, reveals for 1938 that for the company

¹⁸ We are throughout using the term "operating expenses" in the narrower sense defined in footnote 6 on page 815.

¹⁹ Collected under the Financial Research Program of the National Bureau of Economic Research. The sample is described in detail in A. R. Koch: *The Financing of Large Corporations, 1920-39* (New York, 1943), Appendix A.

with the highest ratio of annual long-term interest charges to total annual costs (operating expenses, depreciation, maintenance, selling and administrative expenses, interest charges, etc., but excluding taxes), the ratio was 3.5 per cent. For the majority of the companies the ratio was below one per cent; 37 companies had no debts at all.

The ratio is higher for public utilities and railroads. These have relatively low operating expenses and often finance a large part of their assets with bonds. Many of them, therefore, have substantial interest charges. An indication of the importance of these charges for public utilities may be obtained from Table I.

TABLE I—ELECTRIC PUBLIC UTILITIES, 1938*

Long-Term Interest Charges as Percent of Total Costs	Number of Utilities
0	84
0- 4.99	21
5- 9.99	37
10-14.99	63
15-19.99	63
20-24.99	28
25-29.99	17
over 30	7
	—
	320

* Source: *Statistics of Electric Utilities in the United States, 1938* (Report of the Federal Power Commission).

The statistics relate to privately-owned electric utilities with annual electric revenues of \$250,000 or more. Their number in 1938 was 393. Of this number those were selected which had non-operating income or loss (including income or loss from utility plants leased to others) of less than two per cent of operating income. Total costs include interest charges and what the report calls "operating revenue deductions" (operating expenses, depreciation, amortization, taxes and some other minor items). Since the corporate income tax which is included in taxes cannot be considered as a cost item, total costs are too high, *i.e.*, the percentages of interest cost to total cost in the table are somewhat too low.

It is permissible then to assume that public utilities pay close attention to the long-term interest rate and that the level of the latter does influence their *ex ante* cost calculations. If this is so, we have here an area of economic activity in which changes in the interest rate are likely to be important.

Even here, however, the reaction to a change in the interest rate may not be immediate. Although the interest rate has already fallen, public utilities may still postpone investment, anticipating a further fall in the interest rate, and will only expand when, in the opinion of those responsible for investment decisions, the interest rate has reached its lowest point. Conversely, rising interest rates may not

check an expansion until the rate has reached a level which is considered abnormally high and therefore not likely to last.

III. *Durable Consumers' Goods*

A. *Horizontal Expansion*

The factors which affect investment in new durable consumers' goods (best represented by houses) are fundamentally the same as those affecting investment in durable producers' equipment. Investment in houses will be profitable if the capitalized future revenue (*i.e.*, rent minus repair costs, etc.) imputable to it exceeds the costs of construction. As houses have a relatively long lifetime, even after allowance is made for obsolescence, a change in the interest rate will exert a considerable influence on the present value of the revenue stream and the level of the interest rate must therefore be regarded as an important factor affecting the volume of residential construction.

The relative importance of various factors influencing investment in houses may be illustrated by an example. If the annual rent (after deducting repair costs) expected for an apartment house is \$5,000, and the entrepreneur who contemplates building that house considers it necessary that the investment should be returned in ten years, then, with an interest rate of 7 per cent, he will calculate with a present value of the rent stream of \$35,100. If, however, being now less uncertain about the future, he considers it sufficient to have his capital returned in fifteen years, his calculation will be based on a present value of the rent stream (of \$5,000 a year) of \$45,608.²⁰

The same increase in the present value of the profit as is brought about by this extension of the "time horizon" from ten to fifteen years will equally well be brought about by a rise in the annual rent from \$5,000 to \$6,495 (over the ten-year period), or by a fall of \$10,508 in the building costs, or by a fall in the interest rate from 7 per cent to 6.1 per cent.

Even if the comparison of the present value of the revenue stream with the construction costs of a house indicates to a potential buyer that the purchase is profitable, the purchase may, of course, still not materialize because the buyer cannot raise the necessary funds. The volume of investment in houses depends, then, not only on the estimated length and breadth of the revenue stream, the building costs and the interest rate, but also on the terms on which funds are

²⁰ This calculation gives us an indication of the importance of the uncertainty factor. If a decrease in the uncertainty about the future causes the estimate of the economic lifetime of the house to be raised, that house may shift from the class of unprofitable investments to that of profitable investments, even though neither the interest rate, nor the building costs, nor the rent has changed.

obtainable for financing the purchase of houses, or, more particularly, on the size of the down payment and the length of the amortization period (on which depends in part the size of the annual payment) for mortgages.²¹ The smaller are both the down payment and the annual payment, the larger will be the number of people who can afford to buy houses. With a given amortization period for the mortgage, a fall in the interest rate will reflect itself in a reduction in the annual payment which the buyer has to make.²²

Although the level of the interest rate is a factor of great importance for residential construction, we cannot conclude that a fall in the rate will always stimulate and a rise always check investments in this area. When incomes are declining and their future level is uncertain, a reduction in the annual payment due to a fall in the interest rate, may fail to stimulate the demand for houses. In times of increasing economic activity, a rise in the interest rate will be the less effective in checking building activity the more convinced people are that the boom is going to last. In the earlier stages of the recovery from a depression a rise in the interest rate is unlikely to check investment in houses.

B. Durability

According to static theory a fall in the interest rate will not only stimulate investment in new houses, but will also induce entrepreneurs to build houses of longer durability requiring larger investments.

The argument advanced by economists to show that houses will be made more durable if the interest rate falls is based on the assumption that, as a house is made more durable, the costs required to add one year to its lifetime decrease, at least over a certain range. The entrepreneur's profits will then be a maximum when the present value of the rent for the last year added to the lifetime of the house equals the costs of adding this last year. A fall in the interest rate, by raising the present value of the last year's rent above its cost, will make it profitable to extend the lifetime of the house.

In practice this mechanism tends to be overshadowed by other factors. Changes in fashion with respect to houses, the rapid techno-

²¹ There is, of course, no fundamental difference in this respect between residential construction and other areas of economic activity. In manufacturing industry many investments which entrepreneurs consider profitable cannot be made because the entrepreneurs are unable to meet the credit conditions which the lenders impose upon them. (See next section.)

²² C. A. Long (*Building Cycles and the Theory of Investment* [Princeton, 1940], p. 28) quotes the example of a \$6,000 house with an insured mortgage of 90 per cent of the purchase price, to be amortized over twenty-five years. The total annual charge for amortization, interest and taxes and insurance, amounts at 5 per cent to \$580, at 3 per cent to \$467 and at one per cent to \$402.

logical development in the internal equipment, and shifts in population have induced entrepreneurs in the last decades to build houses of increasingly short durability, irrespective of the level of the interest rate. In terms of the argument given previously, these factors have made the distant returns on a house more uncertain. The tendency of the entrepreneur to base his calculations on shorter and shorter periods of revenue from the house counteracts the influence which a fall in the interest rate would otherwise have on its durability.

IV. *The Area of Influence of the Interest Rate and the Behavior of Financial Institutions*

The figures in Table II show the relative importance of gross capital formation in various branches of economic activity.

Residential construction (including repairs, etc.)²³ plus new construction in public utilities amounted to 25.5 per cent of total capital formation in the boom year of 1929, to 31.4 per cent in the depression year of 1931, and to 23.3 per cent in the depression year of 1933. Parts of the other items listed in the table must be added to these two classes of investments as being sensitive to changes in the long term interest rate. On the other hand, since many public utilities do not make use of long-term debts, and since the figures for residential construction include repairs, a part of the volume of investment in these two lines of activity probably has to be excluded from the sensitive category. The guess may therefore be ventured that roughly one-quarter of the gross capital formation is at best directly affected by changes in the long-term interest rate. The proportion becomes still lower when expenditures on maintenance and repairs are included in the total of gross capital formation.

If we investigate these areas of economic activity empirically, we find, for instance, that in 1921-22, when the long-term interest rate fell sharply, residential house building, and also (in 1922) new investment in public utilities,²⁴ increased while investment in manufacturing industry declined. Conversely, we find that the rise in the long-term rate in 1929 was accompanied by a sharp fall in residential house building (though not in the construction of public utilities) before investment fell off in other areas (including public utilities). It is not, of course, possible to go beyond this statement of facts and to conclude that the change in the interest rate was the *cause*

²³ The way in which the statistics are set up does not allow us to exclude repairs and maintenance from this item as they are excluded from the other items. The percentages shown, therefore, slightly overestimate the proportion of residential and public utilities construction to the total capital formation (excluding repairs and maintenance).

²⁴ In 1922 the interest rate on public utility bonds fell by more than one per cent.

TABLE II—GROSS CAPITAL FORMATION IN THE UNITED STATES*

Type of Capital Formation	1929		1931		1933		1937		1938	
	Mil- lion Dol- lars	Per- cent of Total	Mil- lion Dol- lars	Per- cent of Total	Mil- lion Dol- lars	Per- cent of Total	Mil- lion Dol- lars	Per- cent of Total	Mil- lion Dol- lars	Per- cent of Total
1. Residential construction (including additions, repairs and alterations)	3,010	15.3 (11.0)	1,262	15.4 (9.5)	392	10.9 (6.0)	1,956	11.1	1,746	14.5
2. Public utilities, new construction	2,030	10.2 (7.5)	1,326	16.0 (10.0)	450	12.4 (6.8)	{ 2,555	14.6	1,952	16.3
3. Other business construction	2,551	12.9 (9.4)	906	10.9 (6.8)	486	13.3 (7.4)				
4. Public construction	2,928	14.8 (10.8)	2,615	31.6 (19.6)	1,383	38.0 (21.1)	2,889	16.4	3,455	28.8
5. Producers' durable goods	6,908	34.7 (25.4)	3,531	32.7 (26.5)	2,051	56.4 (36.3)	6,828	38.9	5,169	43.0
6. Changes in business inventories	2,414	12.1 (8.9)	-1,375	-16.6 (-10.3)	-1,126	-31.0 (-17.2)	3,337	19.0	-314	-2.6
Total (items 1 to 6)	19,841	100	8,265	100	3,636	100	17,565	100	12,003	100
7. Construction repairs and maintenance	5,689	(20.9)	4,091	(30.8)	2,280	(34.8)				
8. Producers' durable goods, repairs and maintenance	1,654	(6.1)	943	(7.1)	644	(9.8)				
Total (items 1 to 8)	27,184	(100)	13,299	(100)	6,560	(100)				

* Source: S. Kuznets, *Commodity Flow and Capital Formation*, Vol. I, 1938; and Kuznets, *Commodity Flow and Capital Formation in the Recent Recovery and Decline, 1932-1938*, Bulletin 74 of the National Bureau of Economic Research, 1939. Consumers' durable commodities (other than houses), repairs on them, changes in stocks of silver and gold and changes in claims against foreign countries have been omitted in this table.

of the increase or decrease in investments in houses and public utilities. There are, moreover, many instances where the movement of the long-term interest rate is *positively* correlated with the movement of the volume of investment in these two areas.

So far as the *total* volume of capital expenditures is concerned, it is generally true that an increase in these expenditures is accompanied by rising, and a decrease by falling interest rates. This correlation supports our general thesis that in a dynamic world changes in the level of the interest rate are not usually sufficient to check or stimulate aggregate investment. However, the fact that the turning point from boom to depression is preceded by a high level of interest rates, and the turning point from depression to recovery by a low level, seems to indicate that situations exist in which the interest rate does exert an influence on the total volume of investment. Though we are again of course not justified in drawing the conclusion *post hoc propter hoc*, it can be plausibly argued that the high (low) level of the interest rate is at least a contributory factor in inducing the recession (revival). This is so for three reasons:

First, there is the possibility that the high level of interest rates succeeds in bringing about a decline of investment in houses and public utilities, and that this decline then spreads to other parts of the economic system via the decrease in the demand for construction materials. In order to have this effect, however, the decline will have to be of such magnitude that it more than counterbalances any rise that is still taking place in investment expenditures in those industries where investments are insensitive to the rise in the interest rate. The figures given above seem to indicate that it is unlikely to be of such a magnitude.

Secondly, interest rates, if they are unusually high, may affect investment by influencing the profit expectations of entrepreneurs. It has often been suggested that the level of the official discount rate serves the entrepreneur as a barometer of the general business situation. If this is so, a discount rate which he considers to be abnormally high will lead him to expect a fall in the revenue stream from new machines in the near future, and this may well make their installation appear unprofitable. To what extent entrepreneurs have in the past actually regarded the discount rate as a barometer of future business conditions is impossible to ascertain.

Thirdly, a level of interest rates which is considered abnormally high (or low) may affect investment indirectly by influencing the behavior of financial institutions. A change in interest rates may make itself felt less by affecting profit calculations, and through them the demand for funds than by affecting the behavior of financial

institutions which lend the funds or act as intermediaries between the borrowers and the ultimate lenders. This aspect of our problem raises questions of wide scope which cannot be dealt with *in extenso* in this article. A few remarks must suffice.

As far as commercial banks are concerned a substantial drop in the official discount rate (accompanied by an increase in the liquidity of the banks and a fall in the rates which they charge customers) may induce them to "comb the market" more thoroughly than before. They may be willing now to consider projects which they would have refused previously. Thus they may be more ready than before to lend to entrepreneurs who wish temporarily to finance the installation of new equipment by short-term credits with the intention of funding the credits later through security issues, or of repaying them out of working profits. They may lower their requirements with respect to the "current ratio" which is so frequently used as an index of the credit-worthiness of customers, and resort to other devices for creating an outlet for their funds. This means that entrepreneurs will now be able to undertake investments that were previously held up only by the difficulty of obtaining funds.

The reverse applies even more forcefully when the discount rate has reached a level which is considered abnormally high. Such high rates are usually accompanied by "moral suasion" on the part of the central banks which makes the commercial banks more reluctant to borrow from them. As a consequence, the commercial banks will not only tighten the conditions under which they themselves grant credit to business, but they will also often resort to credit rationing.

If an investment house thinks that the long-term interest rate is unusually high, it may hesitate to sponsor corporate bond issues for fear that the corporations may default on the interest payments in some future depression and thus reflect on the reputation of the investment house.²⁵ The issue of stocks may be subject to similar considerations. An investor in a stock expects to earn on it a return which is, on the average, at least as high as the return obtainable on bonds. If the investment house takes a more conservative view than the management of the corporation concerning the prospect that a return as high as this will be realized, it may decline to undertake a stock issue. When the long-term interest rate is high, therefore, corporations may find it difficult to float new issues even before any downward movement of stock prices has set in. Moreover, operators in the stock market are much more likely to look upon the discount rate as a barometer than are entrepreneurs. A rise in the rate may lead to more pessimistic

²⁵ A detailed study of the rules of behavior followed by well-managed investment houses is badly needed.

anticipations about future dividends and check the rise in stock prices,²⁸ or even lead to their fall. (As a matter of historical record the decline in stock prices tends to precede the decline in business activity.) In periods when stock prices are declining or are expected to decline in the immediate future, investment houses will generally refrain from floating new issues. It is thus conceivable that the capital market may "dry up" simply as the result of a rise in the discount rate to a level which induces the market to take a pessimistic view of the future.

V. Summary

The preceding discussion leads to these conclusions:

1. That in a dynamic world a change in the (short-term) interest rate will not affect the calculations of a trader (or a manufacturer) in such a way as to induce him to reduce or increase his inventory holdings;
2. That a change in the (long-term) interest rate is not likely to influence investment decisions in manufacturing industry;
3. That, under certain circumstances, a change in the (long-term) interest rate may affect investment decisions in the area of public utilities (including railroads) and residential construction; and
4. That, under certain conditions, the level of the interest rate affects the readiness of financial institutions to grant credit or to float bonds and stocks, so that the interest rate may influence the volume of investment even without changing the profit calculations of entrepreneurs.

Interest rates have remained approximately stable for more than a decade. It seems that the Treasury is intent on keeping them at their present level indefinitely. Whether such a policy is possible in the long run cannot be decided here. If it is, this article may be no more than a necrologue.

²⁸ The stock market boom in the late twenties proves, however, that this is not always the case.

IS A RISE IN INTEREST RATES DESIRABLE OR INEVITABLE?

By LAWRENCE H. SELTZER*

A view that is vigorously voiced by some respectable students of monetary and fiscal policy,¹ and one that is fearfully shared by many less articulate but responsible bankers, economists, and business men may be outlined roughly as follows:

- (1) The extremely low level of interest rates that has prevailed in the United States during the war has forced the banking system to absorb huge quantities of government securities because the latter could not be sold to bonafide investors at the prevailing low rates. The result has been a vast increase in the amount of currency and bank deposits outstanding, and the consequent creation of a grave menace of inflation.
- (2) The level of interest rates has been artificially depressed and maintained by Federal Reserve policy and is bound to rise substantially before long. Federal Reserve policy will have to be reversed and interest rates raised sharply if we are to prevent the development of drastic inflation; and interest rates will soar anyhow if inflation comes. In short, substantially higher interest rates are inevitable, whether these are brought about by inflation itself or by the government's attempts to avoid it.
- (3) An immediate tightening of the money market and increase in interest rates, accompanied by the funding of most of the federal debt into long-term obligations, would constitute an effective attack against the inflationary danger. At higher interest rates the public could be expected to save more and to use much of its idle currency and bank deposits to buy back governments from the banks. Excess currency and bank deposits would thereby be extinguished.

Because some such structure of thought exists in the minds of many

* The author is professor of economics at Wayne University.

¹ See Benjamin M. Anderson, "Inflation Control and Treasury's Borrowing Policy," *The Commercial and Financial Chronicle*, October 18, 1945 (Vol. 162, No. 4430); and "The Road Back to Full Employment," in *Financing American Prosperity* (a symposium edited by P. T. Homan and F. Machlup [New York, Twentieth Century Fund, 1945]), pp. 44-52.

economists and business men—although some of them only fear that it *may* be correct—it should be useful to subject these views to critical analysis. This is done in the following pages. At the outset, however, I think it well to summarize my net position: I agree that the present situation holds inflationary possibilities. I disagree with the foregoing diagnosis of the underlying cause. I doubt the effectiveness of the proposed remedy. I disagree with the view that a substantial rise in interest rates is inevitable.

1. *Character of the Existing Danger of Inflation* . . .

The existing inflationary danger is due to the combination of a vast increase in the quantity of liquid assets possessed by the public and great shortages of desired goods. The liquid assets are of three kinds: currency, bank deposits, and government securities. The gross deposits of Federal Reserve member banks on June 30, 1945 were 3.3 times those of mid-1929, and about 2.3 times those of mid-1940. The amount of money in circulation was six times that of 1929 and 3.4 that of 1940. And in addition, between June 30, 1940, and June 30, 1945, individuals, business firms, and state and local governments had added approximately 80 billion dollars of highly marketable or redeemable federal securities to their holdings. The total of currency, bank deposits, and government securities held by the general public at the middle of 1945 (excluding the holdings of the federal government, banks, and insurance companies) was more than three times the amount held five years earlier.

Great shortages now exist not only in consumers' goods but also in business inventories, housing, and business equipment. The combination of such shortages and the public's possession of enormous liquid assets is favorable to price rises because it may induce the public to increase its spending faster than civilian goods become available. If the public decides to go on a buying spree, it has the means to do so.

The increase in liquid assets does not make a marked inflation inevitable, however. There is no mechanical relationship between the amount of currency, bank deposits, and other liquid assets owned by the public and the price level or price movements. Idle currency and idle bank deposits do not bid up prices. Someone has to spend to do this. The amount of cash and other liquid assets possessed by the public constitutes only one of the factors that influence the rate of the public's spending. The state of its confidence or expectations about the future, and the value it places upon the convenience and security of a high level of liquid assets, are just as important.

The increase in private spending may be moderated by the continuance of rationing and other direct controls, and by caution induced

by cancellations of government orders, reconversion unemployment, etc. Further, the rate at which the desired supplies of civilian goods become available will be important in determining whether and how much prices move up. The increase in private spending may conceivably be fully offset by the combination of a sharp decline in government outlays and a rapid expansion in the output of civilian goods and services.

2. Only Heavier Taxation Could Have Prevented the Great Growth in the Public's Liquid Assets

The only kind of fiscal policy that could have prevented a great growth in the public's liquid assets during the war would have been taxation drastic enough to balance the wartime budgets. When current income is taken from the people in taxes, the transaction is complete. A tax receipt does not add to a man's liquid assets. But any kind of government borrowing, whether it be long- or short-term, from individuals or from banks, and at low or at high interest rates, increases private wealth and private ability subsequently to increase spending.

The primary function of a tight money market and high interest rates is to discourage and curtail borrowing. But the only really large borrower during the war has been the United States Government, and no practicable rise in the level of interest rates would have reduced its wartime borrowing and spending. Regardless of interest rates, the amount of military expenditures was limited only by the country's ability to produce; and there is no reason to believe that Congress would have imposed heavier taxes if the long-term rate of interest had been $3\frac{1}{2}$ instead of $2\frac{1}{2}$ per cent or one-year money had commanded $2\frac{1}{2}$ instead of $\frac{7}{8}$ per cent. There was no need to tighten the money market for the purpose of restricting credit extension to business because priorities, rationing, and inventory controls removed the incentives for unnecessary borrowing by business.

A higher rate of interest would not have slowed down the growth of the public debt nor the growth in the public's liquid assets.

3. The Increase in Currency and Bank Deposits Largely Reflects the Public's Desire to Hold Its Savings in Cash

Many persons make the mistake of assuming that the sale of government securities to the banking system and the consequent increase in currency and deposits measure the extent to which savings have been deficient. They ignore the conspicuous fact that numerous savers prefer to accumulate sizable amounts of their savings in the form of currency and bank deposits. Savings were greatly stimulated during the war by the rise in incomes and by the limitations upon the supplies

of desired goods. But much of the saving was done by persons unused to the purchase of securities. These people naturally put only a portion of their surpluses into Treasury Bonds, and kept the remainder in cash. Others, remembering what happened to the prices of Liberty Bonds after the last war, were afraid of price losses in the case of marketable securities, and of the possibility, often baselessly rumored, that the government might refuse to redeem the Savings Bonds on demand. Many other people expected the war to end at any time and wanted to keep their funds instantly available. Besides these factors, the great growth in output, payrolls, and taxes during the war increased the ordinary needs for currency and bank deposits for use in day-to-day transactions and as pocket and till-money reserves.

The sale of securities to the banking system constitutes our principal means of creating currency and deposits to supply all such increased demands. In addition to the bank purchases needed to enlarge the supply of money for transactions purposes, the banks, in effect, bought large amounts of government securities in lieu of the savers who preferred to hold cash. The current savings of the public are not necessarily one bit less when they take the form of bank balances and currency rather than government securities.

4. The Possession of Large Amounts of Government Securities by Weak or Unwilling Holders Can Encourage Increased Spending Just as Much as Cash

It is true that the ordinary investor finds government securities less liquid than currency and bank deposits and is more likely to hang on to them than to keep idle cash. But the difference between a man's holdings of cash and governments is only one of degree. This is particularly true when governments are sold in very large amounts to all classes of the public, including investors whose surpluses are only temporary and who do not ordinarily invest in securities. The governments are then widely regarded as potential cash. After the last World War a considerable part of the Liberty Bonds previously purchased by corporations and individuals was quickly sold and the proceeds spent. Even many experienced and customary investors feel that they make a less permanent commitment when they buy governments than when they buy corporation bonds and stocks. In fact, nearly all investors are likely to feel and act as though their liquid assets are expanded when they first add to their holdings of government securities. The result is that even when a recent purchaser of them does not actually sell his governments, he feels that his holdings of them reduce his needs for cash reserves and place him in a position to spend his current income

and his cash balance more freely. This increased feeling of liquidity exists wherever the new holdings are not regarded as permanent.

If the Treasury had pursued a high interest rate policy from the outset of the war, most of the existing inflationary danger would nevertheless exist. Higher interest rates might have induced the public to put more of its savings into Treasury obligations and less into currency and bank deposits. The extent to which this would have been brought about by a $3\frac{1}{2}$ per cent instead of a 2.5-2.9 per cent long-term rate is debatable. But in any event, the increase in what most of the public regards as its liquid assets would have been no less. Larger amounts of bonds would be held by wage earners, salaried employees, and business corporations as only temporary holdings to be turned into cash and used for goods as soon as the latter became available.

An interest rate that was high enough to cause the public to prefer more Treasury Bonds to bank deposits when goods were unobtainable would not necessarily be high enough to cause the public to keep the bonds after these goods became available. Our experience during the last World War provides a good case in point. The Treasury then paid $4\frac{1}{4}$ per cent for long-term money as compared with high-grade corporate bond yields averaging between 3.3 and 4 per cent in 1900-13, and 4.05 per cent in 1916-17. Giant Liberty Bond rallies, reinforced by the availability of virtually unlimited bank credit for the financing of Liberty Bond purchases, resulted in a wide distribution of the bonds among individuals and business corporations. The direct sales of Treasury securities to banks were relatively much smaller than in this war.² But when goods again became available and the patriotic pressures of wartime were no longer operating, thousands of investors reverted to their previous patterns of spending and saving. In the two years immediately following the end of hostilities, wartime purchasers dumped millions of dollars worth of the bonds on the market at large discounts. High yields did not keep these investors from cashing their bonds. The average yield on United States Government Bonds rose to 4.63 per cent by January 1919, to 4.93 per cent by January 1920, and reached 5.67 per cent in August 1920. The commercial banks expanded their holdings of governments by about 2 billion dollars or approximately two-thirds, between the middle of 1918 and the middle of 1919.

² Extension of bank credit to finance bond sales to individuals and corporations was relatively greater in the First World War than in the Second. Everyone was encouraged to "Borrow and Buy," and the banks liberally financed Liberty Bond purchases by their customers, whereas this was discouraged during World War II. In addition, relatively larger amounts of bank credit were required to finance manufacturers awaiting payments from the Treasury. The speedier payments during World War II, including large amounts of advance payments, have had the effect of substituting Treasury borrowing from banks for bank loans that would otherwise have been made to corporations.

5. The Usual Conditions for an Effective Use of Tighter Money Are Not Present

A substantial tightening of the money market—which means both a sharp reduction in the availability of credit and a marked rise in interest rates—has been the chief weapon of the central banking authorities against an inflationary boom. Even in the absence of deliberate action by the authorities, it has usually occurred in the later stages of a boom because of the growing shortage of credit. In either case there is little doubt that it has tended in the past to restrict or halt inflationary booms, though not always promptly.

Nevertheless, I am forced to conclude that any moderate or tolerable use of this mechanism on an over-all basis would be of very limited effectiveness in the present situation and would be capable of introducing extremely adverse complications of its own.

Tightening the general market can be very effective against an inflationary boom based upon short-term speculative borrowing. The ability of speculators to continue to bid prices up and to accumulate greater inventories usually depends upon their ability to expand the scale of their borrowing. When the central banking authorities tighten the money market by limiting the growth of or actually reducing the reserves of the commercial banks, the latter are forced to refuse accommodation to new would-be borrowers and/or to reduce the credit extended to established customers; and in this process interest rates rise in reflection of the diminished supply of credit. Both the increased cost of borrowed funds, and, more particularly, the diminished availability of credit, force borrowers to liquidate portions of their inventories and to curtail the scale of their commitments in order to reduce their debts. The speculative markets, which are highly sensitive to the cost and availability of bank credit, are normally the first to be affected, but the pressure to liquidate and to reduce debts eventually spreads out in many directions. A period of liquidation and contraction displaces the boom.

But these usual purposes of a tightening of the money market have no direct relevance to the present situation:

(a) The principal user of bank credit, the United States Government, will not be moved by the appearance of higher interest rates to reduce its demands for accommodation. Unlike individual business borrowers, the government would not find it possible to respond to a higher interest rate by paying off any considerable part of its borrowings with the proceeds of inventory liquidation, etc. Nor would any practicable increase in the rate of interest cause Congress to reduce government expenditures and increase the scale of taxation sufficiently to make early large reductions in the public debt.

(b) The unprecedentedly large amount of currency and bank deposits now owned by the business and consuming public is mostly owned outright. The owners do not owe large offsetting sums to the banks. They do not need to renew loans at the banks to keep their cash. In effect, they own unborrowed "excess reserves." Their ability to spend for business and consumption purposes is therefore insulated in considerable degree against the effects of tighter money. Only *borrowers* need to pay the higher rates and face the credit curtailment of a tighter money market.

(c) But ample credit accommodation may nevertheless be needed by some businesses to facilitate reconversion and rising production. Even though industry as a whole appears to have abundant liquid resources, the distribution of them may be spotty. To expand bank credit to enable various enterprises to make disproportionately large increases in civilian output would be anti-inflationary rather than inflationary in its net effects. An over-all restrictive credit policy, on the other hand, would be capable of impeding the growth of output of such enterprises without being highly effective against the undisciplined spending of the huge unborrowed cash balances.

(d) The expansion of consumers' credit might conceivably be checked somewhat, but this type of credit is far better regulated directly and by itself, as under the existing wartime method. It does not lend itself well to regulation by a general tightening of the money market. The consumers' demand for credit is relatively insensitive to ordinary changes in interest rates, and the supply of consumers' credit is likely to remain abundant in the face of curtailment elsewhere. The cost of money to the merchant, finance company, or bank extending the credit accounts for only a modest and sometimes tiny fraction of the gross charge paid by the customer. The gross margin of profit is therefore great. It represents heavy overhead costs as well as variable costs and profits. A strong motive therefore exists to provide abundantly for consumer credit by outbidding competing uses to the extent necessary. The record of this type of credit since 1929 has been so satisfactory from a risk standpoint that the larger consumers' finance companies could doubtless increase substantially the sale of their obligations, secured by installment contracts, to individuals with idle bank balances if the banks themselves curtailed their own takings of them. The nominal volume of bank deposits would not be enlarged if this were done, but an increase in spending would be just as effectively financed.

6. The Secondary Restrictive Effects of a Moderate Tightening of the Money Market Are Not Likely to be Substantial under Present Conditions

Granted that a general tightening of the money market under present

conditions would not operate through its usual effects upon borrowers, would it not moderate inflationary tendencies significantly by curtailing spending in other ways? Higher interest rates might exert such effects

(a) by promoting greater saving of current income and accumulated cash balances by both consumers and business;

(b) by discouraging the sale of government securities from the public to the banks and the further expansion of bank credit in the process; and

(c) by inducing the public to use part of its idle currency and bank deposits to buy governments.

Let us examine each of these possibilities:

(a) It seems safe to say that moderately higher interest rates would not significantly influence the public to reduce its spending either from current income or from accumulated cash balances. In the short run the amount saved from current income is predominantly determined by habits, institutional practices, the amount and distribution of income, and the availability of desired goods. Consumers do not decide to do without washing machines or automobiles or more clothing because the rate of interest obtainable on government bonds rises from $2\frac{1}{2}$ to $3\frac{1}{2}$ or 4 per cent. Their disposition of their wartime accumulations of liquid assets between consumption spending and saving will also be largely governed by factors other than the rate of interest.

Nor would a moderate rise in interest rates be likely to curb business spending materially. Corporations with big cash balances and bright business prospects are not apt to be induced by this development to stop replenishing inventories or remodeling plants, and instead, to hang on to their cash or to buy government securities with it. Nor would they be moved to pay out noticeably less of their profits in dividends to stockholders. The only ones that would be appreciably affected would be those owing short-term debts to the banks. Even these would be induced to curtail their spending significantly only if the amount of bank credit available to them were curtailed, for a rise in interest costs would mean a negligible increase in total costs for most business enterprises. And banks have lots of low-yield short-term governments that they could sell or fail to replace at maturity in order to get funds with which to maintain and even increase the relatively modest amount of bank credit now extended to business.

(b) It may be argued that a rise in interest rates, by depreciating the market value of government securities, putting some of them below par, would at least have the effect of discouraging holders from selling them and spending the proceeds.³ Since the banks would pre-

³ See, for example, H. S. Ellis, "Economic Expansion through Competitive Markets," in Homan and Machlup, editors, *op. cit.*, pp. 143-44.

sumably have to absorb much of such liquidation, any reduction of it would lessen the further expansion of bank credit.

An examination of the distribution of ownership of government securities throws serious doubt on the possibilities in this direction. The distribution as of June 30, 1945, is outlined in the following table.

OWNERSHIP OF THE FEDERAL DEBT, JUNE 30, 1945*

	<i>Billions of dollars</i>	<i>Percentage of total</i>
<i>Individuals</i>		
E Savings Bonds	29	11.3
A-D, F, G Savings Bonds, Tax and Savings Notes	12	4.7
Other securities	18	7.0
Total	59	22.8
<i>Other non-bank investors</i>		
Federal agencies and trust funds	25	9.7
State and local governments	5	1.9
Insurance companies	23	8.8
Mutual savings banks	10	3.7
Other corporations and associations	30	11.8
Total	92	36.0
<i>Commercial banks</i>	84	32.7
<i>Federal Reserve Banks</i>	22	8.5
Total, all holders	257	100.0

* Includes direct and guaranteed obligations; figures for distribution among holders are based upon estimates of the Treasury Department contained in the Treasury Bulletin. Slight discrepancies between the detailed figures and the totals are due to rounding.

It will be noted that insurance companies and mutual savings banks, which buy mainly for permanent holding, accounted for about 12 per cent of the debt; federal agencies and trust funds, about 10 per cent; and the commercial and Federal Reserve banks, about 41 per cent. None of these classes of holders would govern its spending significantly by the market values of government securities. They account for 63 per cent of the debt.

But relatively little of even the remaining 37 per cent of the debt was held by investors whose decision to liquidate their holdings for current spending would be apt to be reversed by the psychological deterrent to selling out at a loss. The remaining 37 per cent was held by individuals to the extent of 23 per cent, and by business corporations and state and local governments to the extent of 14 per cent. Of the 59 billion dollars of governments held by individuals on June 30,

1945, 41 billions, or 70 per cent of the total, consisted of Series E and other United States Savings Bonds.⁴ The holders of such bonds can suffer no depreciation in price by reason of an advance in open market interest rates because their bonds are redeemable at fixed prices on demand. (The redemption values of Series G Savings Bonds decline slightly during each of the first twenty-one semi-annual periods to reflect the relatively excessive interest disbursement made currently.)

Moreover, significantly higher and rising yields are already provided for holders of Savings Bonds to induce them to retain their holdings to maturity. A man who has held his E bond for three years is already offered a yield of 3.58 per cent for the remaining period to maturity; at five years, the yield to maturity is 4.01 per cent; at six and one-half years, 4.36 per cent; etc. The corresponding yields for F bonds are 3.07, 3.27, and 3.31 per cent, and for G bonds, 3.13, 3.32, and 3.34 per cent. No additional stimulus for the retention of Savings Bonds would be provided, therefore, by a moderate rise in interest rates unless the whole schedule of yields on outstanding Savings Bonds were raised, and even then the psychological deterrent against selling out at a loss would be absent.

So far as individuals are concerned, then, the psychological deterrent to selling out at a loss and spending the proceeds would be confined to the 30 per cent of their holdings—7 per cent of the total debt—that is in the form of marketable securities. And the *marketable* securities held by individuals are held mainly by members of the upper income groups who are less likely than holders of E bonds to liquidate for the purpose of increasing their current spending.

Price depreciation as a deterrent to the sale of government securities would appear to offer no greater promise of effectiveness in the case of business corporations. Treasury Savings Notes, which account for about one-third of the aggregate of Treasury obligations held by business corporations, may be cashed at fixed prices on demand and therefore could suffer no depreciation from a rise in market yields. Nor would corporate holdings of Treasury certificates of indebtedness and other short-term obligations be greatly affected. A moderate depreciation in market price would not be highly effective against sales of even 2's, $2\frac{1}{4}$'s, and $2\frac{1}{2}$'s by manufacturing and mercantile corporations intent on financing reconversion and expansion. Investment companies might be induced to hold on to more governments rather than to switch them into other securities, and the same might be true of a portion of the holdings of state and local governments; but little more than this could be expected.

⁴ Including Treasury Tax and Savings Notes.

On balance, the prospective effect of a moderate depreciation in market values as a deterrent to the sale of government securities and the spending of the proceeds is not impressive.

(c) Moderately higher interest rates might have some influence in inducing the public to use part of its idle currency and bank deposits to buy additional governments. The purchases might consist of new Treasury issues or securities bought from the banks. The effect would be either to reduce the amount of currency and deposits or to lessen the increase that would otherwise take place.

How large an effect of this character would be produced by a moderate rise in interest rates cannot be confidently predicted. There have been no comprehensive empirical studies of the responsiveness of investment to changes in interest rates, so far as I am aware. In the early part of 1937, when an increase of one-third in member bank reserve requirements took effect, superimposed upon a previous 50 per cent increase in the preceding year, and when sitdown strikes were occurring in the automobile industry, and bank loans were expanding, the average yield of all Treasury Bonds not due or callable for twelve years or more rose from 2.46 per cent at the beginning of the year to 2.83 per cent early in April. The yield of nine-months Treasury bills went from .32 to .67 per cent, and the average yield of 3-5 year Treasury notes, from 1.13 to 1.65 per cent, in the same period. The member banks reduced their holdings of government securities, direct and guaranteed, by 856 million dollars in the first six months of the year and by an additional 318 millions in the second six months. Insurance companies and mutual savings banks increased their holdings of governments during the year by approximately 1 billion dollars, and the Federal Reserve banks by 134 millions, accounting for substantially all the bank liquidation. (Non-member commercial bank holdings were virtually stationary.) Non-bank investors, however, absorbed the whole of the 1,168-million-dollar increase in the interest-bearing public debt held outside of federal agencies and trust funds.

Interest rates declined thereafter and by the end of the year were little above those of the beginning. (The Treasury bill rate went much lower.) Bank holdings of government securities continued to decline during the first six months of 1938. For the eighteen months of declining bank holdings as a whole, the net decrease of 1,292 millions in the governments held by commercial banks was more than absorbed by the 1,440 millions taken by insurance companies and mutual savings banks. The 600-million-dollar net increase in the interest-bearing public debt held outside of federal agencies and the Federal Reserve banks was taken wholly by non-banking purchasers of non-marketable securities and by insurance companies and savings banks. There was no net

increase in the holdings of marketable Treasury securities by non-institutional investors for the eighteen months as a whole.

It is possible to draw the inference from the figures for the first half of 1937 that the non-institutional demand for governments might be somewhat, though not impressively, responsive to a moderate rise in yields, though little weight can be placed upon the evidence of a single short period. The sharpness of the price decline in governments attracted a considerable amount of speculative buying motivated by the hope of profit from price recovery rather than by the larger investment yields as such. A new plateau of higher yields would soon lose the demand from this quarter. Actually, the holdings of marketable governments by non-institutional investors in June, 1938, were back to the level of December, 1937.⁵ The 2.90 per cent yield on United States Savings Bonds, on sale continuously since 1935, offered a higher return for moderate amounts of investment funds than the highest yields reached in the 1937 decline, and still does. The limits of \$7,500 (issue price) annually on Series A-D Bonds, issued between 1935 and 1941, and of \$3,750 on the present Series E, have probably constricted the flow of funds into these issues from wealthy individual investors, although we must not lose sight of the common practice of widening the effective limits by the purchase of the maximum amount annually in the names of each of several members of a family. Since 1941, Series F and G Savings Bonds, yielding 2.53 and 2.50 per cent, respectively, have been available up to \$100,000 (issue price) annually for the combined series (\$50,000 in the calendar year 1941) for each investor. These considerations are relevant mainly for the motivation of individual investors and ordinary business enterprises. Institutional investors, with short-period exceptions, tend to invest their funds at the going rates just about as fast as they come in. In the absence of better evidence than is now available, we cannot count on more than a modest, if any, responsiveness of investment to a mild rise in yields.

If the reserve position of the banks were made so tight that they could absorb no more governments, sales would continue to be made by some parts of the non-bank public to other parts. The accompanying rise in yields could not be relied upon to slow up spending. Those who insisted upon selling in order to spend would merely acquire and use the previously inactive balances of those who purchased their securities. And even if a moderate amount of bank balances were actually destroyed by being used to purchase governments from banks, the rate of current spending would not be likely to be reduced materially. The idle or less active balances of depositors would be the most apt to be

⁵ *Banking and Monetary Statistics*, Board of Governors of the Federal Reserve System (Washington, 1943), Table 149, p. 512.

converted. Few persons or business enterprises would feel poorer or markedly less liquid for having converted part of their cash into government securities. The net effect might be mainly that depositors would turn over their remaining cash balances more rapidly than before, with no significant curtailment in their rate of spending. That is how we used to finance our spending when interest rates were higher and cash balances smaller. The high rates on short-term investments—2 per cent was frequently obtainable on demand deposits—and the short supply of cash relative to income, price level, etc., provided nearly everyone with a distinct inducement to minimize his idle cash, but the volume of spending was not correspondingly, if at all, reduced because the remaining cash balances were turned over more rapidly. With very low interest rates and a greatly enlarged supply of cash, this inducement disappeared. Much of the increase that has taken place in currency and bank deposits in recent years has been "absorbed" in the maintenance of larger idle balances. A reduction in the size of these idle balances would by no means force a reduction in spending. And it is spending, not the nominal number of dollars outstanding, that bids prices up.

The various considerations cited in the foregoing have led me to conclude that a moderate rise in interest rates, reflecting a moderate restriction of bank credit, would be ineffective for precautionary purposes, and would be ineffective as an attack even upon the actual development of an inflationary rate of spending if the latter did not owe much to an expansion of direct bank lending to business or of new capital flotations.

Yet even a moderate rise in interest rates would be very unsettling and capable of quickly getting out of control. Once the movement became well started, no one would know in advance that it would be confined to moderate proportions (unless this were officially announced, in which case much of the efficacy would be sacrificed). All anyone could be sure of was that the long-established policy of low or declining interest rates had been withdrawn. Disorderly selling in considerable volume might develop, necessitating large-scale market support by the Federal Reserve System to avoid sharp price declines.

7. A Sharp Rise in Interest Rates Would Be Dangerous

While a moderate rise in interest rates, reflecting a moderate restriction in the availability of credit, would be likely to be ineffective in curtailing the aggregate rate of spending, a sharp and substantial rise—say, to a level of 5 or 6 per cent for governments—would be another matter. Such a rise might well dampen inflation both because of the effects of the rate rise as such and because of the degree of credit restriction it would reflect. It is also capable of having the opposite

result, however, if the rise were widely interpreted as reflecting upon the credit of the federal government. A rise of this magnitude would by no means be impossible for a temporary period, even in the absence of deliberate policy. Such a rise could readily occur if the bond market were permitted to become demoralized by a curtailment of member bank reserves and were not supported against the panicky selling of banks and others. But a radical rise in interest rates would be highly dangerous on several counts:

(a) There is the danger just noted that it would be widely interpreted as reflecting upon the credit of the federal government, with the result that the fear of inflation, and therefore the possibility, would be accentuated. On a 5 per cent yield basis our $2\frac{1}{2}$ per cent long-term Treasury's would be selling in the early and middle 60's; our $2\frac{1}{4}$'s, in the early 70's; and even an 8-year 2 per cent would be selling nearly 20 points under par. For large parts of the public, such discounts would not be interpreted merely as a reflection of a tighter money situation, but as strong evidence of the impaired credit of the government. The totals of our public debt, currency in circulation, and bank deposits are now so strikingly greater than ever before as to be capable of lending color to ill-founded rumors and interpretations conducive to a loss of confidence in the currency. In short, although the net effects of a radical rise in interest rates would more probably be distinctly deflationary, as noted in the next paragraph, the risk of an undisciplined opposite reaction, arising from a loss of confidence in the Treasury and the currency, would be real.

(b) There is great risk that the deflationary effects of a radical rise in interest rates might be so severe as to throw the whole economy into a crushing business depression. Such a rise would cause drastic depreciation in the market values of all types of securities. It is six years since Aaa corporate bonds have yielded more than 3 per cent, or long-term U. S. governments more than $2\frac{1}{2}$ per cent. A rise in yields to the neighborhood of 5 to 6 per cent would play havoc with institutional portfolios. It is no doubt true that if the rise were "permanent," the earning power of banks and other institutions would be correspondingly increased and that the enhanced earning power, viewed rationally, would far more than compensate for the shrinkage in asset values, as has been pointed out recently by Paul A. Samuelson.⁶ But who could say how long the new level would last, or that a particular bank would not be forced to realize heavy capital losses? Moreover, bankers and their customers, and indeed the public as a whole, live by the established bookkeeping conventions, which adjudge an enterprise insolvent

⁶ "The Effect of Interest Rate Increases on the Banking System," *Am. Econ. Rev.*, Vol. XXXV, No. 1 (Mar., 1945), pp. 16-27.

if the market value of its balance sheet assets is less than the market value of its balance sheet liabilities. Even if valuation conventions, generous lending, and other procedures by the Reserve banks and federal agencies succeeded in insulating the formal balance sheets of banks and insurance companies from the effects of the price declines, disrupting shifts of deposits from small and medium-size to big banks, stimulated by fear, might well take place, as they did in 1930-33, and public suspicion of the solvency of financial institutions generally incited. Stock prices would decline sharply, with damaging effects upon business confidence and the opportunities for corporate financing.

(c) The political repercussions of a radical rise in interest rates could easily be destructive of our existing machinery for credit control. In view of the whole new framework of thought stressing the long-run desirability of low interest rates, which has gained widespread adherence since 1929, and of the importance of low interest rates to various public programs and to farmers and home-owners, and of the consequences of a sharp rise in interest rates to financial institutions and to the budgetary problem of the federal government, I can think of no important group in the country that could be expected to support a policy of permitting or bringing about such a rise. With a public debt that will shortly approximate 275 billion dollars, an increase of 2 per cent in the level of interest rates would mean the prospect of an ultimate increase in interest costs to a total of more than 11 billions a year. Both Congress and the Executive could be expected to combat strenuously any such prospect and would be likely to interfere with the powers or personnel of the Federal Reserve System in the process.

(d) So long as the greater part of bank earnings is derived from interest on their government securities, the banks would get into an increasingly vulnerable political position as interest rates rose. Already there is considerable criticism on this score. The net profits of the member banks in 1944, 649 million dollars, were substantially larger than in any previous year and about two-thirds larger than in 1941. The increase was due primarily to the growth in their holdings of United States securities. The rate of net profits on their capital accounts rose from 6.7 per cent in 1941 to 9.7 per cent in 1944, when it was nearly as high as in the previous peak years of 1919-20. Their earnings from securities more than doubled between 1941 and 1944. The average rate earned by the banks on securities in 1944 was about 1.5 per cent.⁷ The wartime boom in bank earnings differs from that in many other industries in that the supporting conditions will not disappear with the end of the war—the earning assets of the banks will

⁷ *Federal Reserve Bulletin* for May, 1945, pp. 429 ff.

continue at substantially their present level or will increase. Further reductions in corporate income and excess profits taxes are capable of adding sizable additional amounts to bank earnings.

8. *The Problem Is Not Yet Solved*

In pointing out the reasons why a rise in interest rates would be ineffective if we succeeded in confining it to moderate proportions, and clumsy and dangerous if we allowed it to become substantial, I do not mean to suggest that a problem does not exist or that nothing can be done about it. A problem does exist, or rather two related problems: the broader problem of inflation, and the narrower problem of the government bond market and the relationship of the banking system to it.

(a) *The inflation problem.* I think I have sufficiently indicated that the inflation problem confronting us in the early post-war period is primarily a problem of controlling the rate of spending of already-existing, unborrowed funds owned by the business and consuming public. A moderate rise in the rate of interest on borrowed funds does not attack it effectively and may get out of hand.

The problem may at some time also become one of restraining an undue expansion of bank lending to business. But in this case, too, it is difficult to see how a moderate use of the traditional kind of overall credit restriction could be expected either to be adequately effective against the particular target at which it was aimed or to avoid adverse and possibly long-lasting effects upon other types of credit. Such overall credit restriction would not be likely to be highly effective against an expansion of direct bank loans to business so long as the banks possess large amounts of government and other highly marketable securities which they can liquidate to replenish their reserves when necessary. The initial effect, at least, would be apt to be felt most in the bond market, particularly the government bond market.

Similarly, moderately tighter credit, with moderately higher interest rates, would hardly offer the most appropriate remedy for an inflationary movement that obtained its chief impetus from the federal deficit. What is primarily needed in such a situation is diminished governmental spending or greater taxation or both, rather than tighter money. Whether the deficit is financed by bank credit or by non-bank purchases of securities is of some, but only of secondary, importance.

If inflation should actually get under way, other weapons would be more appropriate and effective in the circumstances now existing than a tightening of the money market. Among these methods are the prompt balancing of the federal budget; the accumulation of budgetary surpluses in the Treasury's account with the Reserve banks or their use

if the Treasury securities held by the Reserve or commercial banks; val- aggressive promotional efforts by the Treasury for the retention and continued purchase by the public of Savings Bonds; the continu-
ance, but on a permanent legislative basis, of the present type of Federal Reserve control over installment credit, with such tightening or loosening as seems appropriate to changing circumstances; an increase in the Reserve System's margin requirements on securities even above the present 75 per cent requirement for new purchases, and the application of the higher requirements to the carrying of old accounts; recommendations by the Reserve System to the President and to Congress to slow down the operations of the government's various promotive credit agencies; and, if the war powers are sufficiently prolonged, priorities requirements and price controls might be usefully continued in a few fields.

(b) *The government bond market.* Independent of the broader problem of inflation, but related to it, is that of preserving an orderly market for government securities, and the proper policy to pursue in this connection with respect to bank holdings of government securities. The reasons why this problem might become acute are noted in the next few paragraphs, and the general character of the probable attack on it is indicated in the concluding paragraph.

(1) *The market will face considerable redistribution of ownership and additional offerings.* Now that the Japanese war has ended, the market for government securities may be subject to great, if temporary, strains at any time. The demand will lose the force of the patriotic motive operating in wartime and the powerful support flowing from the near-absence of competing investments. Selling pressure, on the other hand, will appear from many quarters. Many business corporations will liquidate their holdings or fail to replace them as they mature in order to obtain funds to replenish depleted inventories or reconvert plants or exploit new developments. Many individual and institutional investors will reduce their holdings of governments as new issues of higher yielding corporate securities become available. Many holders of War Savings Bonds will turn in their bonds for cash in order to buy automobiles, household furniture, houses, etc. Various banks may wish to sell some of their holdings in order to increase their loans to business.

Moreover, the ending of hostilities has not stopped the Treasury's need for net additional borrowing. We shall face the costs of policing occupied territories in Europe and Asia, of extending aid in the reconstruction of various European countries, of demobilization, and of possible domestic reconstruction programs. The Treasury will doubtless be able to meet some of its maturities, redemptions, and new money

needs by letting its cash balances run down, by liquidating surplus war materials and properties, and by using net receipts of the old-age, unemployment, and other trust funds. But on net balance it is likely to face heavy cash deficits for some time.

The market will have to withstand, therefore, both a considerable redistribution of the outstanding debt and substantial additions to it.

(2) *We cannot rely upon new savings to absorb all offerings promptly.* Over a period of several years the investment demands of insurance companies, savings banks, trustees, and individual investors might conceivably absorb all of the liquidated, refunding, and new securities without a significant rise in interest rates and even with a further fall. But these regular investors are not usually in a position to anticipate their future needs far in advance. Their investment funds come to them in relatively small amounts every day through receipts of premiums, interest, dividends, rents, savings deposits, etc. At any one time they can put into the market only their current receipts and perhaps a small amount of previous receipts, for they do not ordinarily carry large idle balances.

(3) *Only limited support can be expected at first from the war-created cash balances.* With the war ended, the individuals and business enterprises with large cash balances are mainly those whose very preference for cash over securities during the war was principally responsible, in the last analysis, for most of the wartime sales of government securities to the banks, and, correspondingly, for the increase in the total amount of currency and bank deposits outstanding. For if these savers had been willing to buy governments during the war, smaller amounts would have been sold to the banks, and correspondingly smaller additions to currency and bank deposits would have occurred. It is not likely that many of these holders of cash balances will suddenly decide to shift into governments.

Undoubtedly, many of them will be content with smaller balances when priorities and other restrictions on production are lifted. Substantial amounts of cash are now held idle by their owners only because the desired types of goods cannot be had at present but are expected to become available in the not-distant future. As civilian goods become increasingly available, we can expect these holders to spend much of their balances promptly for the replenishment of inventories, deferred repairs and replacements, and for new producers' and consumers' goods. In these cases the cash balances will get into new hands, and to the extent that the successive new owners likewise have pressing desires for goods and services, the balances will be quickly transferred again and again. Unless developments occur to make the owners prefer the maintenance of the wartime levels of cash balances to additional goods

or income-yielding securities, efforts to spend or invest the unneeded amounts will persist. If prices and/or output do not rise sufficiently in this process to take up the slack in cash balances, the excess will tend more and more to get into the hands of persons and institutions readier to buy government securities than the previous holders of the funds. But this will take time.

(4) *The middlemen's services of the commercial banking system will be sorely needed.* In the immediate situation, the middlemen's services of the commercial banks will be sorely needed. Without their intermediation, disorderly and damaging fluctuations in bond prices might easily occur even if underlying conditions remained favorable. For the commercial banks perform services in the government bond market similar to those of dealers and jobbers in other fields in cushioning the effects of sporadic offerings and purchases. They constitute the largest block of immediate purchasers and of wholesalers and retailers of government securities.

But the banks are loaded up with ordinary governments, and in the absence of special stimulation they may not be eager to add large amounts to their holdings immediately. In fact, instead of supporting the market, the banks may at times themselves generate sharp waves of selling either because they fear higher interest rates or to free reserves for commercial lending. The Federal Reserve System will be faced with the dilemma that over-all quantitative restriction of member bank reserves will damage the bond market, but liberal provision of member bank reserves in support of the bond market may lead to undesirable credit expansion.

(5) *Strong Federal Reserve support of the bond market seems inevitable.* In this situation I do not see how the Federal Reserve authorities can decide otherwise than to do everything they can to support the government bond market. The Treasury's influence would certainly be expected to be exerted powerfully to this end, for apart from any theory respecting the continuous desirability of low interest rates, the Treasury will be facing large new and refunding issues for many years to come. The Treasury's maturities of public marketable issues alone during the next five years aggregate 80 billion dollars and during the next eight years they amount to 123 billions. A declining bond market would create difficulties for the refunding operations. Moreover, the tax increases needed to meet even a moderate rise in interest costs, superimposed upon the heavy taxes that will be required for other purposes, would meet great resistance, for they would create additional burdens for the lower income groups and further damage to business incentives. An increase of only one per cent in the average rate of interest would add a greater sum to the federal budgetary

requirements than the total receipts from individual income taxes in any year between 1925 and 1940. The same tax increases that might be tolerated if adopted expressly for temporary periods to combat inflation, with the proceeds available to reduce the public debt, might be intolerable if levied to meet advances in the interest cost of a dead-weight debt. In this atmosphere, the Federal Reserve authorities should not find it difficult to persuade themselves that inflation controls can be exercised more directly and more effectively through other channels. And this, I have argued, is actually the case.

The technical problem confronting the Reserve authorities will be to provide abundant member bank reserves for support of the bond market and yet to prevent these reserves from being used for excessive expansion of bank credit for other purposes. This problem can be attacked by selective credit controls, as previously mentioned, possibly including the use of special Treasury securities for banks,⁸ in conjunction with other governmental measures to control the rate of spending.

⁸ See Lawrence H. Seltzer, "The Problem of Our Excessive Banking Reserves," *Jour. Am. Stat. Assoc.*, Vol. 35, No. 209 (Mar., 1940), pp. 24-36.

THE CONCEPT OF ECONOMIC SURPLUS

By KENNETH E. BOULDING*

Economic surplus may be said to be present whenever a seller makes a sale for a sum greater than the least sum for which he would have been willing to make the sale, or whenever a buyer makes a purchase for a sum smaller than the greatest sum for which the buyer would have been willing to make the purchase. If I am able to sell an article for \$10 which I would be willing to sell for \$8.00, then \$2.00 represents economic surplus. Likewise, if I am able to buy an article for \$10 for which I would be willing to pay \$13, then \$3.00 represents the economic surplus. This concept of an economic surplus has played an important part in economic theory, whether in a simple or in an extended form. It is the basis of the Ricardian theory of economic rent and of the Marshallian theory of consumers' surplus, and is an important concept in welfare economics. It lies at the root also of the Marxian theory of surplus-value.

Economic surplus can arise only where there are differences among the various buyers or sellers of an identical article in respect of their willingness to buy and sell. What is the same thing in other words, it is a phenomenon necessarily associated with less than perfectly elastic demands and supplies. If all the sellers of a given commodity were willing to sell it at a price of \$10, the supply would be perfectly elastic within the range of sellers, and no matter what the demand within this range the price would always be \$10 and there would be no economic surplus. Similarly, if all buyers were willing to buy a commodity at a price of \$10, the demand would be perfectly elastic within the relevant range and, no matter what the supply, the price would always be \$10 and there would be no economic surplus. Suppose, however, that some sellers are willing to sell at \$9.00, some at \$10, and some at \$11. If the demand is such that the \$9.00-sellers can supply all that is necessary, the price will be \$9.00 and there will be no economic surplus. If, however, the demand rises so that the amount which the \$9.00-sellers are willing to supply is insufficient to satisfy the buyers at that price, the price must rise to \$10 in order to attract the \$10-sellers into the market. Then the \$9.00-sellers receive an economic surplus of \$1.00, for they would be willing to sell for \$9.00, but in fact receive

* The author is associate professor of economics at Iowa State College.

\$10. If the demand rose still further, so that the \$11-sellers had to be brought into the market, the price would rise to \$11, the \$9.00-sellers would have an economic surplus of \$2.00 and the \$10-sellers of \$1.00.

Similarly in the case of demand, if there are some buyers willing to buy the commodity for \$11, some for \$10 and some for \$9.00, and if the supply is so small that at a price of \$11 all that sellers will offer will be taken by the 11-dollar buyers, the price will be \$11 and there will be no economic surplus on the buyers' side. If, however, the supply is larger, so that the price must be brought down to \$10 in order to attract the \$10-buyers, the \$11-buyers will receive an economic surplus of \$1.00. If the supply is still larger, so that the price falls to \$9.00 in order to bring the \$9.00-buyers into the market, the \$11-buyers will receive \$2.00 economic surplus and the \$10-buyers will receive \$1.00 economic surplus. Economic surplus on the sellers' side may be called "sellers' surplus" and on the buyers' side, "buyers' surplus."

The principle is illustrated in a familiar diagram in Figure 1. The "buyers' curve," $B_1 \dots b_n$, shows what quantities buyers are just willing to buy at various prices. Thus, at a price OB_1 there are buyers just willing to buy B_1b_1 ; at a price ON_2 , there are buyers just willing to buy an amount B_2b_2 ; and so on. The total amount that will be bought at the price ON_2 is, of course, $B_1b_1 + B_2b_2$, or N_2b_2 , and, as the same principle applies all the way down the curve, the "buyers' curve" is also the demand curve. The demand curve is essentially the *cumulative frequency distribution* of the amounts that people are just willing to buy at various prices. Similarly the "sellers' curve," $S_1 \dots s_n$, shows what quantities the sellers are just willing to sell at various prices. It is the cumulative frequency distribution of the amounts that people are just willing to sell at various prices.

The equilibrium price, ON , is that at which all sellers can find buyers for the amounts desired—i.e., at which the quantity offered is equal to the quantity sold. Then the total buyers' surplus at the equilibrium price is measured by the area NB_1P and the total sellers' surplus by the area S_1NP . The buyers' surplus measures the difference between the total amount actually paid by the buyers ($ONPM$) and the total amount which they would have been willing to pay if perfect price discrimination could have been practiced—(i.e., if each unit had been sold at the highest price that anyone was willing to pay for it)—which would be the area OB_1PM . The sellers' surplus measures the difference between what the sellers actually receive ($ONPM$) and the least sum for which the amount OM could be obtained under perfect price discrimination—i.e., if each quantity were to be paid for at a rate only just sufficient to induce the seller to part with it. This is the area

OS_1PM . The sellers' curve is similar to what Marshall called the "particular expenses curve." It is identical with the supply curve only if changes in the willingness to supply due to external economies can be neglected.

This is essentially the "classical" theory of economic surplus. The Ricardian theory of rent appears as a special case: if rent is that which is paid for the "original and inexhaustible powers of the soil," then clearly rent is being paid for something that is perfectly inelastic in supply. In the case of any commodity the supply of which is perfectly inelastic at all prices, the whole payment for the commodity is economic rent; for the commodity would be supplied even if nothing were paid for it.

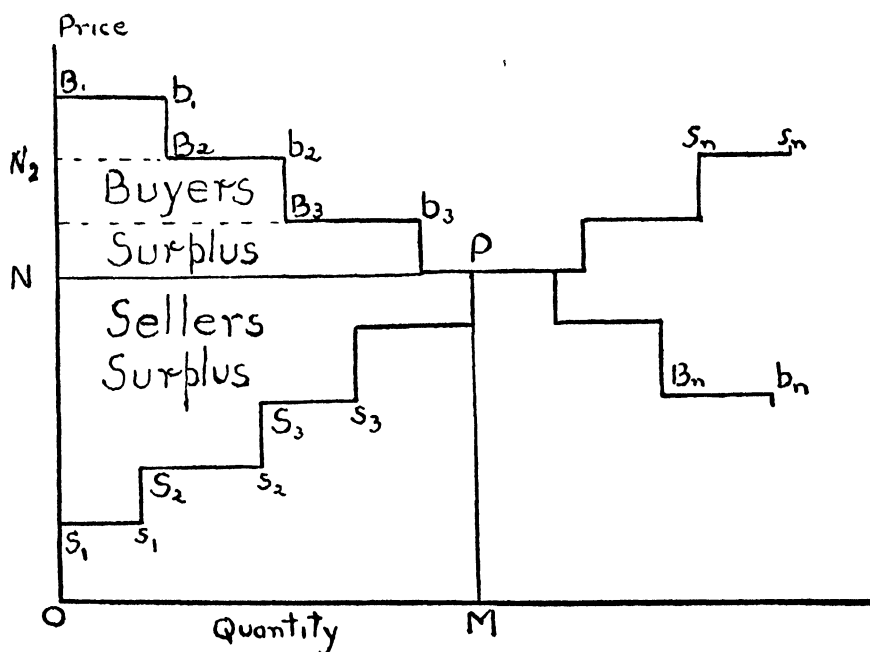


FIGURE 1

Thus in Figure 1, if the sellers' curve were MP , the whole area $ONPM$ would be sellers' surplus—i.e., economic rent. The question of whether any such commodity exists, of course, is a doubtful one: certainly most of the services of land, with the possible exception of the great river-bottoms, are neither original nor inexhaustible. Even the element of *location*, which might seem at first sight to be perfectly inelastic in supply as land cannot be other than where it is, nevertheless is significant only in relation to the location of the human population,

which is perfectly capable of shifting. If, however, there exists any commodity with a perfectly inelastic supply there can be no doubt that the whole payment received for it by its owners would be economic rent.

The exposition is considerably complicated, although not changed in essence, when we consider that demands or supplies may be less than perfectly elastic for two reasons: first, because *individual* buyers and sellers will buy or sell different quantities in response to different prices; and, secondly, because a change in price may affect the *number* of buyers or sellers. This is the distinction between what used to be called, rather vaguely, the "intensive" and the "extensive" margins. In the illustration of the \$11, \$10 and \$9.00-buyers or sellers, it was assumed that the variation in quantities offered or demanded with change in price came solely from changes in the number of sellers or buyers. In fact, of course, a rise in price may not only attract new sellers, but may also encourage each individual seller to sell more; likewise a fall in price may not only attract new buyers, but may also encourage each individual buyer to buy more. This fact is not excluded by Figure 1, where the buyers and sellers curves refer to *quantities*, not only to individuals.¹ Thus the quantity B_2b_2 , which would just be bought at the price ON_2 , may represent an addition to the purchases of existing buyers as well as the purchases of new buyers; and the quantity S_2s_2 likewise may represent an addition to the sales of existing sellers as well as the sales of new sellers.

For a complete analysis of the problem, then, we must consider the demand curve of an individual buyer and the supply curve from an individual seller. Fortunately, much that was previously obscure in this matter has been cleared up in recent years through the indifference curve analysis. In Figure 2A we show the indifference curves, M_0I_0 , M_1I_1 , etc., for a single marketer (buyer or seller, depending on the circumstances), showing his preferences between money and the commodity marketed. Quantity of money is measured along the vertical, quantity of commodity along the horizontal axis. Any one indifference curve shows those combinations of money and of commodity to which the marketer is indifferent. Any point on indifference curve M_1I_1 is preferred to any point on M_0I_0 : generally, any point on M_nI_n is preferred to any point on $M_{n-1}I_{n-1}$.

We suppose that the marketer has in his possession a quantity OR_0 of commodity and a quantity R_0P_0 of money. The point P_0 , therefore, represents his initial position. The problem is: Given a "market"—i.e., a situation in which he can buy or sell any amount of the commodity at a given price—to what point will he move? The line showing what

¹ Marshall does not seem to be quite clear on this point in drawing his particular expenses curve.

combinations of money and commodity are open to him through exchange is his "opportunity line." At a constant price it is a straight line through the point P_0 , the slope of which is equal to the market price.

Thus if the price is $\frac{P_1 S_1}{P_0 S_1}$ the opportunity line will be $P_0 P_1$. Moving to the right along an opportunity line means that the marketer is buying—i.e., giving up money for commodity. Moving to the left means selling—giving up commodity for money. The marketer will move along his opportunity line as long as the line is cutting indifference curves, for this means that he is progressing to higher and higher indifference curves—i.e., more and more preferable positions. When the opportunity line ceases to cut, but instead *touches* an indifference curve, the marketer has reached the best possible position with the given price. Thus, when $P_0 P_1$ is the opportunity line the marketer will move along it until he reaches P_1 , where the line $P_0 P_1$ touches the indifference curve $M_1 I_1$. He will not go beyond this point because, if he does, he will be passing to lower—i.e., less preferred—indifference curves.

If the market price is equal to the slope of the indifference curve at P_0 , the marketer will neither buy nor sell. His opportunity line will be $Q'_0 P_0 Q_0$, but no matter in which direction he moved along it from P_0 he would move to lower indifference curves. He will, therefore, sit tight at P_0 : the price $\frac{OQ'_0}{OQ_0}$ ($= r_0 P_0$ in Figure 2B) is his "null price."

If the price is lower than the null price, he will buy: if the price is higher, as represented by the opportunity lines $P_0 P'_1$, $P_0 P'_2$, etc., he will sell. The locus of the points of equilibrium at various prices is the dotted line $P'_2 - P_0 P_1 P_2 - P_4$. This may be called the total revenue-outlay curve. From P_0 to P_3 it is a total revenue curve, showing the total amounts of money measured from the line $P_0 S_1 P_3$, that the marketer will receive for the sale of various amounts of commodity, measured from the line $P_0 R_0$. Thus the point P_1 shows that at a price $\frac{P_1 S_1}{P_0 S_1}$, the marketer will give up an amount $S_1 P_1$ of money and will receive in exchange $P_0 S_1$ of commodity, leaving him with $R_1 P_1$ of money and OR_1 of commodity. From P_0 to P'_2 the line is a total outlay curve, showing what amounts of money will be received for the sale of various amounts of commodity.

The total outlay-revenue curve can easily be turned into the marketer's demand-supply curve in Figure 2B, where the horizontal axis is identical with that of Figure 2A, and the vertical axis measures the ratio Money/Commodity. For each quantity of commodity represented

by r_1, r_2 , etc., we calculate the price, $\frac{S_1 P_1}{P_0 S_1}, \frac{S_2 P_2}{P_0 S_2}$, ($= r_1 p_1, r_2 p_2$, etc.) and plot the line $p'_2 p_0 p_3$ accordingly. The segment $p_0 r_3$ is the marketer's *demand curve*: it shows how much he will buy at each price. The segment $p'_2 p_0$ is the marketer's *supply curve*: it shows how much he will sell at each price. The segment of the outlay-expenditure curve $P_3 P_4$, and of the demand-supply curve $r_3 p_4$ represents a situation (extremely unlikely to occur in a commodity market) where the price is negative—*i.e.*, where the marketer can increase *both* the amount of money he has and the amount of commodity at the same time. In this case the commodity has become a discommodity, as is shown by the positive slope of the indifference curves: at points such as P_4 an increase in the quantity of commodity is so distasteful that it must be compensated for by an increase in the quantity of money.

In Figure 2A the indifference curves have been drawn vertically parallel—*i.e.*, the whole system can be mapped out by moving one of the curves parallel to itself in a vertical direction. It follows that, for each quantity of commodity, the slopes of all the indifference curves are identical. The slope of an indifference curve is called the marginal rate of substitution of money for commodity: it is the amount of money which must be substituted for one unit of commodity if the individual is to feel no gain or loss. Thus, if the marginal rate of substitution (for short, *MRS*) is \$3.00 per bushel, then if a bushel is subtracted from the marketer's stock of commodity, \$3.00 must be added to his stock of money in order to leave him as well satisfied as he was before. If now the indifference curves are parallel, the *MRS* of all the indifference curves at any given quantity of commodity is equal to the price of the commodity. Thus at a quantity of commodity OR_1 , the slopes of the indifference curves at Q_1, P_1, W_1 , etc., are the same, and are also equal to the slope of the line $P_0 P_1$ —*i.e.*, to the price of the commodity—as $P_0 P_1$ is tangent to the indifference curve at P_1 . The *MRS* of all the indifference curves at the quantity OR_1 is therefore equal to $r_1 p_1$ in Figure 2B. That is to say, when the indifference curves are parallel, the *MRS* curve corresponding to each indifference curve is the same as the demand-supply curve.²

²This condition of "parallel indifference curves" is essentially similar to the condition that the marginal utility of money should be constant, assumed by Marshall in his analysis of consumer's surplus. It is, however, somewhat broader than Marshall's assumption. The

MRS at any point on an indifference curve is the ratio $\frac{\text{Marginal Utility of Commodity}}{\text{Marginal Utility of Money}}$ (see Boulding, *Economic Analysis*, p. 663). Marshall assumed that for a given quantity of commodity the marginal utility of the commodity would be independent of the amount of money, and that the marginal utility of money was likewise independent of the

There are several concepts of economic surplus which can be derived from this construction. Perhaps the simplest is the "buyer's surplus" and "seller's surplus," analogous to the Marshallian "consumer's surplus." The buyer's surplus is the difference between what the buyer pays for a given quantity of the commodity under the conditions of a uniform price, and what he would have paid under the least favorable conditions of differential pricing. Thus in Figure 2A the curve P_0I_0 shows the path the marketer would follow under perfect differential pricing: at a price just a little less than r_0p_0 he will buy one unit; at a slightly smaller price he will buy another unit; and so on down the curve $P_0Q_1 \dots I_0$. Under perfect differential pricing, therefore, he will pay S_1Q_1 for a quantity R_0R_1 ; under uniform pricing he would only pay S_1P_1 . The buyer's surplus, therefore, is P_1Q_1 . Similarly, if he be shown that this is also equal to the area $s'_1p_0p'_1$ in Figure 2B, marketer buys an amount R_0R_2 at a uniform price r_2p_2 , the buyer's surplus is P_2Q_2 . It can easily be shown that the buyer's surplus is also equal to the triangular area under the demand curve. Thus, at a quantity R_0R_1 ($=r_0r_1$) the total amount which the marketer would have to pay under perfect differential pricing is the area $r_0p_0p_1r_1$ in Figure 2B. This is equal to the line S_1Q_1 in Figure 2A. The total amount paid under uniform pricing is the area $r_0s_1p_1r_1$ in Figure 2B ($=S_1P_1$ in Figure 2A). The buyer's surplus in Figure 2B, therefore, is $r_0p_0p_1r_1 - r_0s_1p_1r_1 = \text{area } s_1p_0p_1$.

An exactly analogous concept of "seller's surplus" can be derived from the supply curve $p_0p'_2$ in Figure 2B, and the corresponding part of Figure 2A. Thus the marketer will sell an amount $P_0S'_1$ for an amount $S'_1P'_1$ under uniform pricing. Under perfect differential pricing he can be made to sell this amount for only $S'_1Q'_1$. The seller's surplus—the difference between these two amounts—is $P'_1Q'_1$. It can easily

The next problem is to remove the limitation of parallel indifference curves. Figures 3A and 3B show a situation in which, for each quantity of commodity, the *MRS* increases as the quantity of money increases: as we move upward along any vertical line in Figure 3A we cut indifference curves of successively steeper slopes. The system of indifference curves do not now reduce to a single *MRS* curve, but in-

amount of money. This last assumption could only be even approximately true over small ranges. On these assumptions, of course, the *MRS* would likewise be independent of the quantity of money for each quantity of commodity. The *MRS* may also be constant, however, if *both* the marginal utility of commodity and the marginal utility of money change in the same proportion as the quantity of money changes. Thus as we proceed upward along any vertical line in Figure 2A, the marginal utility of money is likely to fall, as the quantity of money increases, following the familiar law of diminishing marginal utility. It is possible that the marginal utility of the commodity will also fall as the quantity of money increases, even though the quantity of commodity is held constant. This will happen if the commodity is "competitive" with money.

stead each indifference curve has its own *MRS* curve: in place of the single *MRS* curve of Figure 2B we now have a system of such curves as in Figure 3B: m_0i_0 , m_1i_1 , etc., corresponding to the indifference curves M_0 , M_1 , etc., of Figure 3A. Then at a price equal to the slope of the opportunity line P_0P_1 in Figure 3A ($=r_1p_1$ in Figure 3B) the amount bought will be R_0R_1 , P_1 being the point of tangency of P_0P_1 with the indifference curve. If in Figure 3B a perpendicular from r_1 cuts the *MRS* curve m_1i_1 in p_1 , r_1p_1 is the price at which the amount or_1 will be bought—being equal to the slope of the indifference curve at P_1 . Similarly r_2p_2 , p_2 being on the *MRS* curve m_2i_2 , is the slope of the indifference curve at P_2 , and is the price at which r_0r_2 will be bought. The dotted line $p_0p_1p_2$ is, therefore, the demand curve, which is not now identical with any one of the *MRS* curves, but has a flatter slope. Similarly, $p_0p'_1$ is the supply curve, derived from the outlay curve $P_0P'_1$. The supply curve in this case has a steeper slope than the *MRS* curves. It is easy to show that if the slopes of the indifference curves at a given quantity of commodity fall with increasing quantity of money, the *MRS* m_1i_1 will lie below m_0i_0 , m_2i_2 will lie below m_1i_1 , and so on. In this case the demand curve will have a steeper slope than the *MRS* curves and the supply curve a flatter slope.

The buyer's surplus does not, in this more general case, equal the triangular area under the demand curve. Thus, in Figure 3A the buyer's surplus at the quantity R_0R_1 is P_1Q_1 ($S_1Q_1 - S_1P_1$). Corresponding to S_2Q_1 in Figure 3A, we have the area $p_0q_1r_1r_0$ under the *MRS* curve m_0i_0 : corresponding to S_1P_1 , we have—as before—the rectangle $r_0s_1p_1r_1$. The buyer's surplus, then, is equal to $os_1p_1r_1$, which $r_0p_0q_1r_1$ —is equal to the triangle $s_1p_0t_1$ minus the triangle $t_1p_1q_1$. This is clearly less than the “demand triangle” $s_1p_0p_1$, which in this case has no meaning whatever. Similarly in the case of supply: the seller's surplus, at a quantity $R_0R'_1$, is equal to the quadrilateral area $s'_1p'_1q'_1p_0$. This is *greater* than the “seller's triangle” $p_0p'_1s'_1$. If the *MRS* became smaller as the quantity of money increased, the relations would be reversed: the buyer's surplus would be larger than the buyer's triangle, the seller's surplus would be smaller than the seller's triangle.

There is another important concept which is associated with the idea of economic surplus. This is the concept of a “compensating payment”: *i.e.*, of the sum of money which would be sufficient to compensate a marketer for a given change in the price of the commodity. Thus, in Figure 3, suppose that there is a rise in price from r_2p_2 to r_1p_1 . The opportunity line shifts from P_0P_2 to P_0P_1 : the buyer shifts from the position P_2 to the position P_1 . P_1 is on a lower indifference curve than P_2 —*i.e.*, the buyer is worse off because of the shift in price. The ques-

tion is, What sum of money, given to the buyer, would just compensate him for the rise in price—*i.e.*, would enable him to get back again to the indifference curve M_2 ? This is the sum P_0P_x , where P_xX_2 is drawn parallel to P_0P_1 to touch the indifference curve M_2 in X_2 . If he had a sum R_0P_x to start with, and if the price were r_1p_1 , the opportunity line would be P_xX_2 , as the slope of this line is equal to that of P_0P_1 : with this sum of money and at this price he will proceed to X_2 , where he is just as well off as he was at P_2 , X_2 and P_2 being on the same indifference curve. The amount he would buy under these circumstances is in between the amounts he would buy at P_1 and at P_2 .

If the indifference curves are parallel it can easily be shown that the compensating payment is equal to the change in the buyer's surplus due to a shift in price: under these circumstances, as in Figure 2, X_2 coincides with W_2 , as the slopes of the indifference curve at W_2 is equal to the slope at P_1 . The change in buyer's surplus is $P_2Q_2 - P_1Q_1 = W_2P_1 = P_0P_x$. If the *MRS* increases with increases in money, as in Figure 3A, the compensating payment is larger than the change in the buyer's surplus.³ It can be shown that, in terms of Figure 3B, the compensating payment for a change from p_2 to p_1 is the area $s_1s_2p_2s_x$: the change in the buyer's surplus is the area of the complex polygon $s_1s_2p_2q_2q_1p_1$. It should be observed that the compensating payment in the case of a fall in price from r_1p_1 to r_2p_2 —*i.e.*, the tax which a buyer would have to pay in order to bring him to the indifference curve I_1 when the price is r_2p_2 —is less (in Figure 3A) than the compensating payment in the case of a rise in price. If P_1X_1 is drawn parallel to P_0P_2 to touch M_1W_1 in X_1 , P_0P_1 is the tax which will just balance the gain to the buyer resulting from a fall in price from r_1p_1 to r_2p_2 . This is equal to the area $s_1s_2s_1p_1$ in Figure 3B. If the indifference curves are parallel, of course, the compensating payment is the same whether the movement of price is a rise or a fall.

Consider now what the payment must be to compensate the marketer for the entire loss of the market—*i.e.*, for the prohibition of buying or selling. In that case he will not be able to move from the position P_0 . If the original price was r_2p_2 , the payment which would be necessary to compensate for the loss of the market would be P_0N_2 . This will bring the marketer up to the indifference curve to which he could have attained had he been free to buy at the price r_2p_2 . P_0N_2 is equal to the

³For a fuller discussion of the "Compensating Payment" concepts see the following:

J. R. Hicks, *Value and Capital* (Oxford, 1939), pp. 38-41; and "The Rehabilitation of Consumer's Surplus," *Rev. Econ. Stud.*, Vol. 8 (Feb., 1941).

A. Henderson, "Consumer's Surplus and the Compensating Variation," *Rev. Econ. Stud.*, Vol. 8 (Feb., 1941), p. 117.

A. Kozlik, "Note on Consumer's Surplus," *Jour. Pol. Econ.*, Vol. XLIX, No. 5 (Oct., 1941), p. 754.

area $p_2s_2n_2$ in Figure 3B. It will be observed that this area is larger than the "demand triangle" $p_2s_2p_0$. In the case of a seller, if the price had originally been $r'_1p'_1$, the sum needed to compensate the seller for the loss of the market is P_0N_1 , equal to the area $p_1s_1n_1$ in Figure 3B. This area is smaller than the "supply triangle," $p_0p'_1s'_1$.

We can apply this analysis to the consideration of the "gain from trade"—i.e., the total payment which would be necessary to compen-

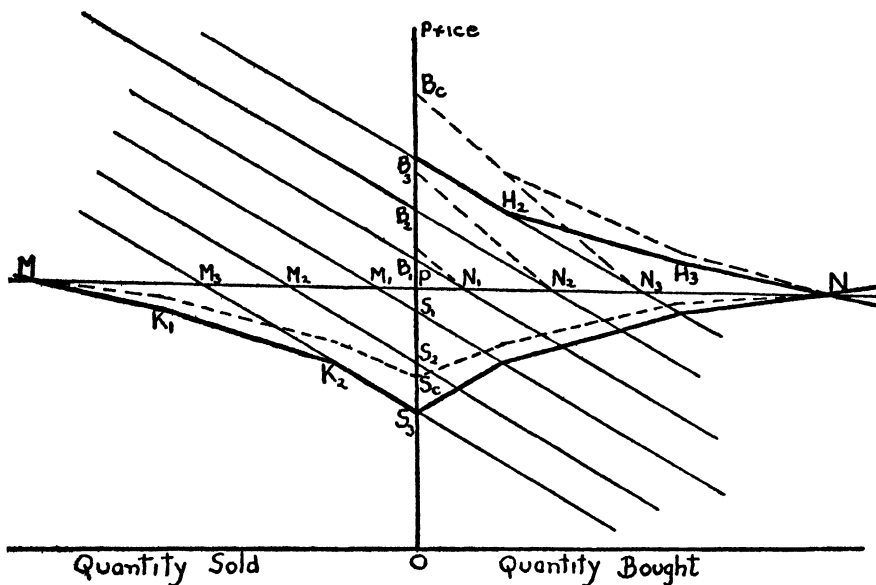


FIGURE 4

sate all the marketers for the loss of a market. In Figure 4, a group of individual demand-supply curves is shown, cutting the price axis in S_3 , S_2-B_2 , B_3 . The market demand curve is obtained from these demand-supply curves by summing the total quantity bought at each price—i.e., by adding horizontally that part of the curves to the right of the price axis: it is the curve $B_3H_2H_3N$. Similarly, the market supply curve, $S_3K_2K_1M$, is obtained by adding horizontally those parts of the demand-supply curves which lie to the left of the price axis. The market price is OP , where $PN = PM$ —i.e., the total quantity demanded—is equal to the total quantity offered. If now the indifference curves of the marketers are parallel, so that the "demand triangle" measures the compensating payment for each buyer, the total compensating payment to buyers is the area $PN_1B_1 + PN_2B_2 + PN_3B_3$, which is equal to the area PNB_3 . Similarly, the total payment which would compensate sellers for the loss of the market is the area PS_3M . If now we draw S_3N the mirror image of S_3M , we get the familiar

supply and demand figure, and the total compensating payment is the area S_sNB_s .

It is not difficult to introduce an adjustment to take care of the case where the marketers' indifference curves are not parallel. The curve B_cN is obtained by summing horizontally the *MRS* curves of each buyer passing through N_1 , N_2 , N_3 , (shown as dotted lines in Figure 4). B_cN is an aggregate *MRS* curve for the buyers: the total compensating payment is, therefore, the area PB_cN . Similarly, MS_c is the aggregate *MRS* curve for the sellers: the total compensating payment to sellers is PS_cM . If NS_c is the mirror image of MS_c , the total payment which would compensate both buyers and sellers for the loss of the market is the area B_cNS_c . Unless conditions are very peculiar, the area B_cNS_c is not likely to differ very greatly from the area B_sNS_s , as the corrections lie in the same direction. While the assumption that the *MRS* increases with increase in the quantity of money makes the buyers' compensating payment larger, it makes the sellers' compensating payment smaller, so that the total is not much changed. If we assumed that the *MRS* declined with increase in the quantity of money, the effect would be to diminish the buyers', but to increase the sellers' payment.

We can apply the above analysis to the well-known theorem in the field of taxation, to prove that, if a tax is laid on a commodity, the total tax revenue is less than the "loss" to the marketers, as measured by the compensating payment. That is to say, even if all the revenue from a commodity tax were to be returned as a lump sum to the taxed marketers, the marketers would be worse off than before. This is shown in Figure 5, where BP , SP are the market demand and supply curves. If a tax equal to N_sN_b is placed on each unit of the commodity, when the market is in equilibrium buyers will pay ON_b , sellers will receive ON_s . The total tax revenue is $N_sN_b \times N_sP_s =$ the area $N_sN_bP_bP_s$. If indifference curves are parallel, the sum that would have to be paid to buyers to compensate them for the rise in price is NN_bP_bP : the corresponding sum for sellers is NPP_sN_s . The total payment required to compensate for the tax is $N_sN_bP_bPP_s$: this is greater than the total tax revenues by an amount equal to the area P_sP_bP . If now we introduce a correction for increasing *MRS*, PH_b and PH_s are the aggregate *MRS* curves for buyers and for sellers, and the total payment required to compensate for the tax is $N_sN_bH_bPH_s$. This is greater than the total tax revenues by an amount equal to the complex area of the polygon $P_sP_bH_bPH_s$. This area will not differ greatly from the area P_sP_bP .

Up to this point we have considered the concept of economic surplus only in relation to the pure market phenomenon in which there is no

supply and demand curves, the potential owners of a durable good knew at the time that the returns were going to be lower than the long-run supply of the good would not be produced. Disappointment, therefore, is the absence of a quasi-rent. What we know too little about, however, is the relation of a succession of disappointments to the long-run supply price itself. Long-run supply and demand curves are a useful tool to cover up a vast complexity of inter-temporal relationships and, while they may enable us to perceive the broad shape of these complexities more clearly, they frequently hide the real dynamic structure of the system. Thus the application of the economic surplus concept to long-run demand and supply curves is beset with difficulties, and may not be very fruitful. The concept cannot be used, certainly, to justify the thesis of Marshall and Pigou regarding taxing industries of increasing supply price to subsidize industries of decreasing supply price—quite apart from the question of whether these categories are “empty boxes.”

Nevertheless, as applied to a particular “industry” or sector of economic life, the concept has some meaning: in fact, several possible meanings. We may ask ourselves, “What is the greatest amount that could be extracted from this industry by price discrimination, without change in output?” Thus by price discrimination consumers could be forced to pay more for the present output, and producers could be forced to receive less. The economic surplus, in this sense, represents that theoretical maximum which the state might get out of an industry by discriminatory taxation, without affecting output. Another possible meaning of economic surplus in this case is the sum of money which would be just sufficient to compensate the individuals of society for the loss of the industry. These correspond to the two concepts already described. There is small likelihood, however, that these concepts will coincide, or that either of them can be measured by the area between the demand and supply curves.

The problem of applying the economic surplus concept to the economy as a whole is of the utmost importance, yet tantalizingly difficult. The “compensatory payment” concept here is quite meaningless: obviously no sum of money, or purchasing power, could compensate for the loss of the whole volume of production. The alternative concept, however, of the amount that might be extracted from the society without a diminution of output is of very great importance, for it represents that part of the total product which is “available”—either for redistribution, or for the extravagance of the state or for the pursuit of military power. For Marx, of course, the whole produce of society above the subsistence of the working class was “economic surplus” (*i.e.*, surplus-value); for by the labor theory of value the

subsistence of the working class is all that is necessary to call forth the total product. Marx undoubtedly went too far in this, for the process of production is not merely a mechanical transformation of acts of labor into product, but is a subtle complex affected by innumerable institutional and psychological factors. How much can be expropriated from society without destroying productive activity depends a great deal on the manner of the expropriation. Thus the economic surplus of the whole economy is not a very clear concept. There are indications that in modern industrial society it may be very large, and the experience of the war shows what a great proportion of current output can be diverted to "unproductive" uses without any serious impairment of productivity.

The indifference curve analysis used earlier can throw some light on this problem. In Figure 6 we show, for an individual, indifference curves between money and a factor of production. We will suppose, to fix our ideas, that the factor is labor: then OR_0 is the amount of labor at the person's disposal—say, 24 hours per day; R_0P_0 is the amount of money in his possession at the beginning of the day; P_0P_1 is the opportunity line at zero wages (as we have drawn the indifference curve with a positive slope at P_0 , indicating that in small quantities labor is positively pleasurable, the individual will give up an amount P_0P_1 of labor even at zero wage). P_0P_2 , P_0P_3 , etc., are the opportunity lines at successively higher hourly wage rates: the locus of their points of tangency with the indifference curves, $P_0P_1P_2 \dots$ is the total receipts curve, measured from the line P_0P_1 . From this curve, the supply curve for labor can be derived just as the supply curve was derived in Figure 2. It will be observed that the curve is re-entrant: *i.e.*, above a certain wage, represented by the slope of P_0P_3 , an increase in the wage results in a decline in the amount of labor offered. This is the familiar "backward sloping" supply of labor.

Suppose now that a flat-rate income tax is laid on the individual when his wage was equal to the slope of P_0P_4 . The result of the tax is simply a reduction in the effective hourly wage: the opportunity line less tax falls to, say, P_0P_3 . Because the supply is negatively elastic in this region, there is actually a rise in the amount of work done because of the tax, from R_0R_4 to R_0R_3 . The gross income earned is then $S_3P'_4$: the total tax collected is $P_3P'_4$. If the tax were laid in a region where the supply was positively elastic, as between P_3 and P_2 , it would cause a fall in the amount of work supplied.

Some interesting conclusions can now be drawn as to the theory of progressive or regressive taxation. A progressive tax is one where the proportion of income paid in taxes rises with rise in income. The opportunity line after tax therefore bends downwards—*i.e.*, its slope

becomes less and less with increasing work done. Where the tax rate increases by "brackets" of income, the line will be a series of straight lines of diminishing slope. Thus P_oT represents the opportunity line

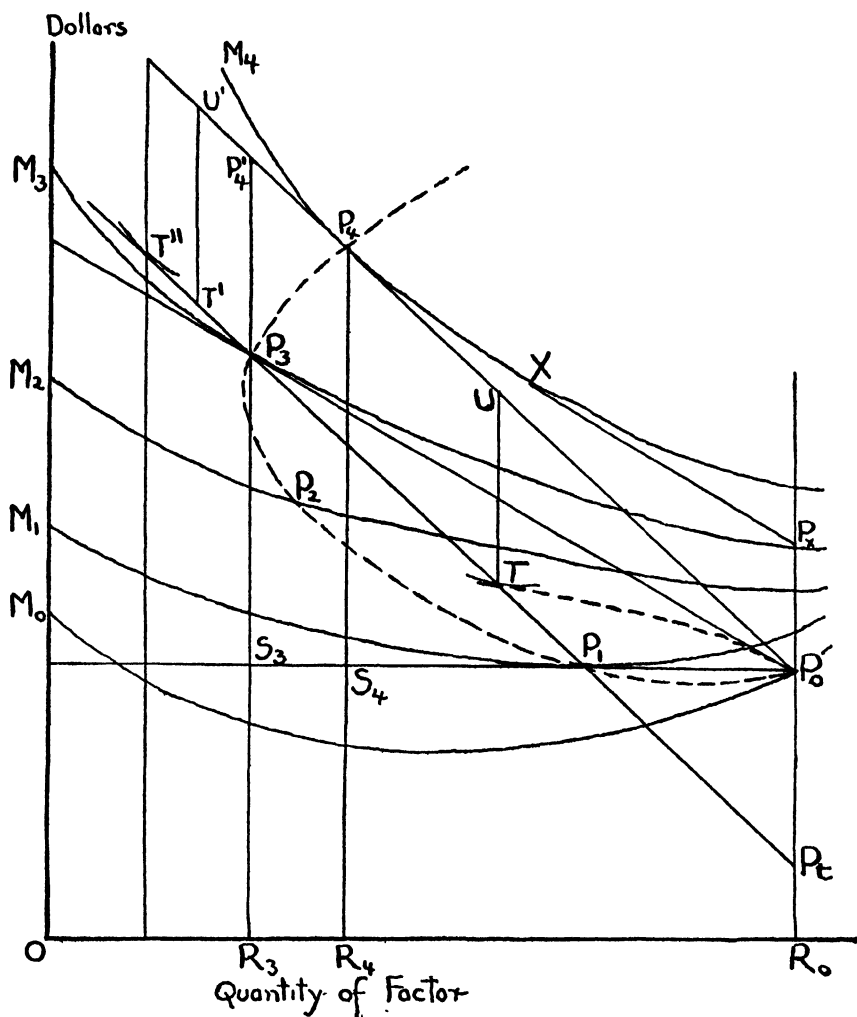


FIGURE 6

after a progressive tax is deducted from the income of P_oP_4 . It touches an indifference curve at T , and has been drawn so that the total tax paid, TU , is equal to the tax paid under a flat rate tax, $P_sP'_4$. It will be seen that the effect of raising a given revenue from an individual by a progressive rather than a flat-rate tax is to lower the amount of

work done, to lower net income after tax, and to make the individual relatively worse off, as may be seen by comparing the position at T with the position at P_3 . Raising the same revenue by a regressive tax, on the other hand, results in an expansion of output and of income, and makes the individual relatively better off, as may be seen by comparing T' with P_3 , T' being a point where a net opportunity line from P_0 after a regressive tax (not shown on figure) touches an indifference curve. A regressive tax has somewhat the same effect as "over-time" pay—*i.e.*, it increases the marginal return, and so spurs the individual to greater effort. It is interesting to note that an even better way of collecting a given amount of taxes from an individual is to assess him a lump sum which is independent of his income. His net opportunity line is then $P_1TT'T''$, which touches an indifference curve at T'' —the highest indifference curve attainable to the individual, whose gross income opportunity is given by the line P_0P_4 and who has to pay a tax equal to P_0P_1 .

It is interesting to note that, under the assumptions of Figure 6, the compensating payment would be less than the tax paid in all cases except that of the fixed tax. Thus under the proportionate tax discussed above, $P_3P'_4$ is the amount of tax paid. If now XP_x is drawn parallel to P_0P_3 , touching the indifference curve M_4 at X , P_0P_x is the "compensating payment"—*i.e.*, is the lump sum which, if given to the taxpayer, would make him just as well off as he was before the tax. P_0P_x , under the conditions of Figure 6, is less than $P_3P'_4$. It must be observed that this conclusion depends on the assumption that the MRS increases with increase in the quantity of money. The backward-sloping supply curve also can only exist on this assumption.

Some conclusions for tax policy follow from this analysis. If there is no serious unemployment problem we can assume that the objective of policy is to increase production by all possible means. Then the deleterious effect of progressive taxes on the supply of factors must be taken into consideration. A desirable situation would be one in which taxation was progressive as between individuals, but regressive for each individual. The best system—if it were administratively possible—would be one in which each individual had to pay a lump sum tax based on his "wealth"—*i.e.*, on his earning *power*—but independent of his income—*i.e.*, independent of the degree to which he put his earning power to use. To some extent the property tax is of this nature; and, although one hesitates for political reasons to advocate extending the principle of the property tax to the property that we have in our minds and bodies, real economic benefits might follow.

In the presence of an intractable unemployment problem, however, it is by no means certain that a "property tax" would be even theo-

retically the most desirable. In such a condition we might wish to repress the labor supply rather than encourage it, and there might then be a case for diminishing the labor force through progressive taxation, even though this might seem a counsel of despair.

The moral of this analysis would seem to be that the concept of economic surplus, while it can be defined to have a good deal of meaning, is not a sufficiently accurate analytical tool for the solution of problems of policy. As an instrument for the analysis of welfare problems it is much inferior to the more general device of indifference curves. It is a concept capable of much ambiguity and, in hands that are not highly skilled, its use can easily lead to false or misleading results. Nevertheless, it is a useful expository device and has a long and interesting history. Even if it occupies a relatively subordinate place in modern economics compared with the central position it once occupied, it is by no means to be discarded. And the student who appreciates its full significance will understand a great deal about the problems which both the classical and the modern economics seek to solve.

ANNUAL WAGE GUARANTEE PLANS

By RITA RICARDO*

The drive for economic security on the part of wage earners has forced the public to consider the possibilities of annual wage guarantees. In the midsummer of 1945 the National War Labor Board, for the first time, ordered a guaranteed work plan to be included in a labor management contract.¹ Government research groups, outgrowths of a presidential committee, have been appointed to study annual wage guarantee plans while current, popular literature describes them as an effective means of reducing seasonal and cyclical unemployment. Labor proponents of annual guarantees believe that they "tend to be self-serving through their contribution to maintenance of purchasing power, make our economy more stable, and give rise to the creation of new job opportunities."² Their claims have been upheld by the Department of Labor-sponsored National Conference on Labor Legislation which, in endorsing the principle of an annual wage, stated that "experience of progressive managements over a period of years has shown the value of a guaranteed annual wage in maintaining stability of employment and purchasing power for the products of industry."³

The purpose of this paper is to help evaluate these claims by determining the effects of the adoption of an annual wage guarantee plan by a single firm, by an industry, by all industry.

An annual wage guarantee plan is a guarantee by an employer to his employees, all or a per cent of his labor force, of a weekly paycheck of a constant amount for a given number of weeks of the year, usually forty or more. It may or may not include a wage advance, an amount above what the employee actually earns in a short hour week which the employee repays by working longer hours in other weeks, thus keeping the paycheck at a constant level. The plan is not to be confused with a guaranteed employment plan where the guarantee is on regular work, not regular take-home.

The first annual wage guarantee plan in the United States was

* The author is extremely indebted to Professor Wassily Leontief of Harvard University for his valuable suggestions and criticisms.

¹ *Boston Globe*, July 28, 1945, p. 1.

² U.S. National War Labor Board, *Supplemental Opinion of Labor Members of the Panel*, Case 111-6230-D (14-1 et al.), p. L-35.

³ Eleventh National Conference on Labor Legislation. *Text of Resolution*; adopted December 14, 1944, Washington, D.C.

introduced in the Columbia Conserve Company, Indianapolis, Indiana, in 1917. There is no accurate count of the growth of these plans in operation, but their number has probably never been large. During the depression of the thirties, and also at the passage of the federal unemployment compensation law, many were sharply curtailed or completely wiped out. The National Industrial Conference Board has estimated, from a sample survey made in 1936, that less than one per cent of the companies in the United States had any form of annual wage or employment guarantee plan and that in 1940 only thirty plans of this type were in operation.⁴ As of March, 1944, fifty-seven companies had annual wage plans on file with the Wage and Hour Division of the Department of Labor. Since by filing, the employer benefits by partial exemption from penalty overtime payments, this count may be considered fairly accurate.⁵ Only four out of the thirty-one companies for which we have the necessary data provide an annual guarantee for their whole labor force. A recent Bureau of Labor Statistics survey states that, out of a group of eight million workers covered by labor contracts, less than fifty thousand or six-tenths of one per cent are covered by a guaranteed wage or employment provision.⁶

Adoption of an annual wage guarantee by a single firm. In an attempt to make the analysis applicable to the present economy, conditions are assumed as near to reality as is possible without confusing the issue. The firm has a union shop contract.⁷ The annual wage plan is negotiated and the details bargained on at the beginning of the year. The most important point to be bargained on is obviously the amount in dollars of the guaranteed wage bill. At the actual negotiation table this will be broken down into the number or per cent of employees who will receive an annual wage guarantee, the number of weeks to be guaranteed and the basic wage rate to be used in computing the final figure. Although the above are mutually determined, the employer still has the sole right to decide the size of his labor force. He must, however, fill vacancies immediately and may not fire any employee covered by the guarantee except at the time of renegotiation. This provision limits substitution of machinery for labor during the year to that for newly hired labor or labor that would be hired. The situation where the number of workers hired is mutually determined by the

⁴National Industrial Conference Board, *Management Record*, May, 1944, p. 118; and *What Employers Are Doing for Employees* (Stud. No. 211, 1936), p. 11.

⁵U.S. N.W.L.B., *Guaranteed Employment and Annual Wage Plans* (Research and Stat. Rept. No. 25), August 25, 1944, p. 6.

⁶U.S. B.L.S. *Monthly Labor Review*, April, 1945, p. 708.

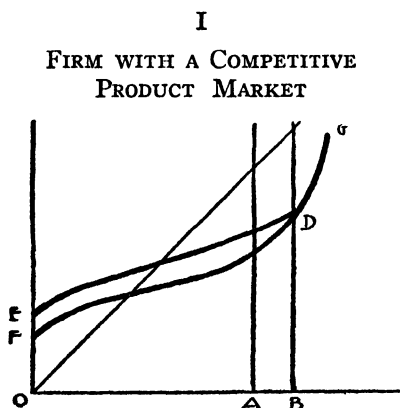
⁷Every member of the labor force must be a member of the union but the entrepreneur may hire whom he pleases under the condition that the newly hired person, after serving a probationary period, will become a member of the union.

entrepreneur and the trade union is discussed later as a natural development of collective bargaining under annual wage guarantee plans.

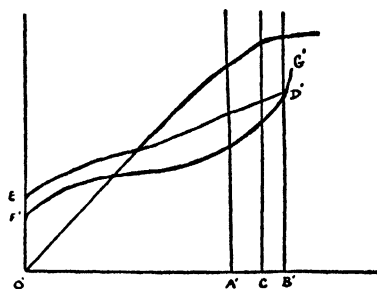
It is necessary to distinguish between firms with different market conditions since the effects of such a plan being adopted by a single firm depend on what type of firm introduces the plan. Firms may be divided into two groups, those whose factor and product markets are not seasonal and those whose factor and product market, either or both, are seasonal. Firms may be further classified as follows:

1. A firm whose product market is competitive.
2. A firm whose product market is typified by monopolistic competition and whose product, because of deterioration or obsolescence, cannot be stored from one year to the next.
3. A firm whose product market is typified by monopolistic competition and whose product can be stored from one year to the next.

Firm in a non-seasonal industry. For a simpler first analysis it is assumed that the firm is in a non-seasonal industry. Complications



II
FIRM WITH A MARKET TYPIFIED
BY MONOPOLISTIC COMPETITION



introduced by seasonal fluctuations will be analyzed later. The firm is in equilibrium, that is, it is operating at a maximum profit and its marginal cost equals its marginal revenue. In the short run, that period being defined as the first year during which the plan is in operation, the level of the total cost curve of the firm will be raised and its slope flattened out up to the output which the firm under its original cost curves would have produced if it had used up all the guaranteed labor cost. At this point the new total cost curve will join the old one. The entrepreneur's fixed costs have been increased by the amount of the imposed labor cost, while his variable and thus marginal costs have been decreased. If the new total cost curve does not join the old one until after the equilibrium output, the imposition of the plan will change

the firm's optimum output since it has decreased the marginal costs at and beyond the original optimum output and left the shape and level of the marginal revenue curve the same.

In Diagram I, the original total cost curve is *FDG*; the new one, *EDG*. The total revenue curve remains the same. *OA* is the optimum output of the firm before the imposition of the annual wage guarantee plan; *OB*, after it is imposed. *OB* is also the output which the firm can produce if it uses up all its guaranteed labor cost.

Diagram II is identical with Diagram I except for the difference in the shape of the total revenue curve and the fact that *O'C*, not *O'B'*, is the optimum output after the plan is imposed.

To understand the implications of the above analysis three cases are set up:

1. The amount of the payroll guaranteed is less than the total labor cost needed to produce the maximum profit output.
2. The amount of the payroll guaranteed is equal to the total labor cost needed to produce the maximum profit output.
3. The amount of the payroll guaranteed is more than the total labor cost needed to produce the maximum profit output.

It is obvious that in the first two cases the optimum output position of the firm will not change. It is only the third case, represented in the above diagrams, which is of interest. Under the assumption that the employer retains the right of unilateral decision over the number of employees which he hires, it is rather unlikely that he will find himself in this position unless he is a poor planner. As long as he can set the number of his employees, he will never hire a number greater than that which he knows he can fully employ for a year. Therefore the guaranteed payroll will not, even with a guarantee of 100 per cent of the working force, be larger than that which he would have paid without the guarantee. The fact that a fixed group of men are assured that they will be the ones to share the payroll is only a slight change in degree of the usual restrictions on the employer's right to fire as expressed in labor contracts. A payroll larger than that which would have been paid without the guarantee would be common if the trade union and the employer negotiated the number of employees to be hired.

Proponents of annual wage guarantee plans have not asked that the size of the work force be a matter of negotiation, although in a few cases where plans are already in existence it is, but their arguments imply this request. Trade unions will not be long in realizing that only if they have some control over the number of employees can an annual wage guarantee in a non-seasonal industry yield to labor, year after

year, anything above what they would have had without the guarantee. If they do not have this control in some form, employers can reduce their work force at the beginning of each contract year to a minimum and hire temporary workers as they need them. In fact this practice, coupled with a seniority qualification for a guarantee, would void the value of any guarantee.

The third case is important not as an analysis of the position of the entrepreneur who has made a poor estimate of his labor needs, but of the entrepreneur who is forced at the negotiation table to hire more workers than is consistent with his greatest profit. This situation is, wherever the trade union is stronger than the employer, a logical development of collective bargaining under annual wage guarantee plans. Here the employer is likely to be forced to accept what he does not want, as is the union, when the positions are reversed. There are many possible combinations of different degrees of power on either side, but because of the very nature of collective bargaining, no precise formulation of the outcome of clashes between different degrees of power is possible. A recent, attempted tabulation gives an illusion of predeterminate exactness to the results of collective bargaining which, because of the uncertainty introduced by bluff, cannot exist.⁸

In Diagram I, the case of a firm with a competitive product market, total costs are higher at *OA* output, and over the output range to *OB*, than before the plan was adopted. The entrepreneur must determine the optimum volume of production under the new conditions, and the optimum amount of that volume to sell in the first year of the plan. The entrepreneur with a competitive product market, who expects no change in the price or demand for his product from Year One to Year Two, will sell in Year One all that he produces in that year. The increase in his profits gained from selling the additional production in Year One is greater than would be the discounted future profit from selling it one year hence. Even if a price rise were expected it is unlikely that it would be large enough to cause an entrepreneur in a competitive market to hold part of his stock for future sale. An expected price rise is usually not thought of as a large jump in price but as the culmination of a rising trend of prices. The fact that the entrepreneur has no control whatsoever over this price also would deter him from holding any of his product as a speculative investment.

He may produce *OA*, or he may produce *OB*. Following traditional analysis, the determination of his optimum output depends on the

⁸ See J. T. Dunlop, *Wage Determination under Trade Unions* (New York, Macmillan, 1944), p. 91, and *Review of Economic Statistics*, Vol. 27, No. 1 (Feb., 1945), p. 35, footnote 4.

elasticity of the revenue curve and the slope of the new total cost curve, since these determine profits. Because by hypothesis the demand curve is perfectly elastic, the change in the volume of the most profitable output will depend mainly on the level and slope of the new total cost curve. The difference between the slopes of the new and old total cost curves, or between the marginal cost curves, will depend largely on the relative amount of labor cost per unit of output. If the old total cost curve represented four outlay units of labor and two outlay units of raw materials, it would be rising at the rate of six units (assuming only two variables), the new one at the rate of two. The larger the labor cost per unit of output, the flatter the total cost curve becomes and the more probable that a larger output than the original one is the most profitable one. Other factors influencing the volume of the most profitable output is the effect of the increased demand of the entrepreneur on the prices of the other factors which he must buy and the possibility of greater utilization of existing plant and machinery. The smaller the entrepreneur's influence on factor prices and the less additional plant and equipment needed, the larger the new maximum profit output will be. In the determination of the new optimum output the size of the imposed cost in relation to the "normal" labor cost is paramount. The problem is to maximize the new profit, or the difference between the total revenue and the new total cost. The total revenue will increase because more units are sold; total cost will increase partly because more units are produced and partly because of the imposed fixed labor cost. The output at which this difference is largest is the entrepreneur's new optimum output.

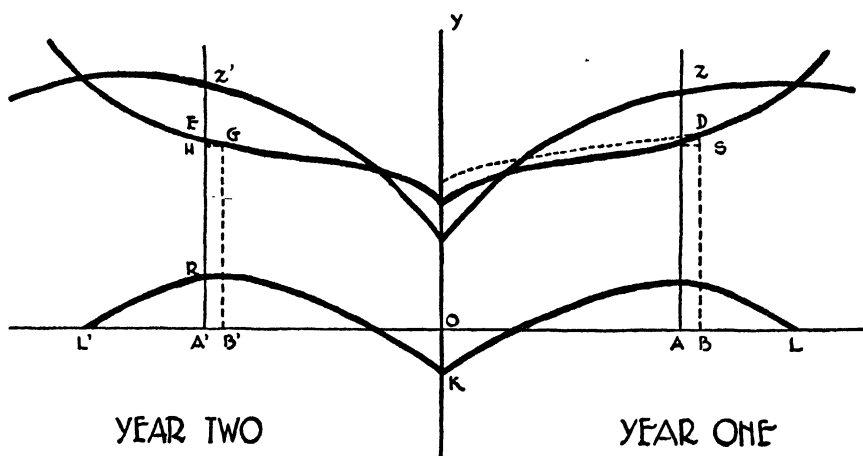
If the firm has a competitive product market the new equilibrium output will be OB . Since the new total cost curve in many cases will have a kink at D , proof that OB output is the entrepreneur's most profitable one cannot rest on the fact that at this output the marginal cost equals the marginal revenue or price. There are two marginal cost curves involved: the one derived from the new total cost curve ED and the one derived from the old total cost curve FDG , which the new one joins. At D , where the direction of the combined total cost curve EDG changes, there is no unique marginal cost. Since by assumption the new total cost curve joins the old one beyond the point where the marginal cost equals the price, marginal cost will increase faster than marginal revenue at outputs greater than OB and will increase at a slower rate at outputs smaller than OB . The entrepreneur will tend to stay at D , or continue to produce OB regardless of changes in the price of his product. This rigidity of supply by the individual firm is maintained because OB remains the most profitable output even when there is a large change in the price of the product.

The entrepreneur with a product market typified by monopolistic competition but whose product, because of quick deterioration, obsolescence or some other factor, cannot be stocked from one year to the next will also sell in Year One all that he produces in that year. Unlike the entrepreneur with a competitive market he may not find OB or $O'B'$ to be his optimum output. If the demand for his product over the $A'B'$ output range were inelastic, the entrepreneur would have to reduce the price of his product drastically to sell more units of it and, therefore, his total revenue will not increase as rapidly as if the demand were perfectly elastic; in fact, it may decrease. His optimum output may be anywhere between $O'A'$ and $O'B'$ or either of these two limits. As before, it will be the output which maximizes the difference between the old total revenue curve and the new total cost curve.

The entrepreneur with a market typified by monopolistic competition and whose product can be stored one year and sold the next may not wish to sell all of his additional output in Year One. He will consider his costs and revenue for Year One and Year Two together. Since there are no prohibitions against the entrepreneur's firing as many of his employees as he wishes at the end of Year One, he can balance his enforced overproduction in Year One by piling up inventory and, unlike the other two entrepreneurs already considered, produce less than he would otherwise have done in Year Two. He retains the opportunity to produce his optimum output, only he considers his production period to be two years, not one. As seen in Diagram II, he may produce $A'C$ in addition to his original output in Year One. He will sell, however, only that part of it in Year One which will increase his total profit in that year by an amount which just equals the profit he would get by selling it in Year Two. In Year Two he will produce less than he would have had produced if the additional cost had not been imposed in Year One. He will employ less labor in Year Two, the amount depending on the slopes of his total revenue and cost curves. In Year One, by assumption, the marginal revenue product of labor is less than its marginal cost. If the entrepreneur employs less labor in Year Two than he otherwise would have, labor's marginal revenue product in that year would be greater than its marginal cost. Over the two years he can balance these amounts and attain the production volume which will be the most profitable possible for the two-year period.

In the diagram below dollars are on the Y axis; the number of workers on the X axis. It is assumed that conditions are identical over a two-year period. Employment of OA labor yields the maximum profit in Year One, but the entrepreneur is forced to employ OB labor. AB equals $A'B'$. Will the entrepreneur's demand for labor in Year Two be

different from what it would have been if no guarantee had been imposed in Year One? (Storage costs and discounting for time are omitted for clarity of argument.) The marginal revenue of Year One, which depends on the amount of sales, *i.e.*, on the production of Year One minus the quantity of that production which is stocked, must be equal to the marginal revenue of Year Two, which depends on the production of Year Two plus the quantity stocked in Year One to sell in Year Two. In other words, the slope of the total revenue curve at Z must equal the slope at Z', and thus the same amounts must be sold each year if maximum profit over the two-year period is to be realized. The marginal revenue of Year Two must equal the marginal cost of Year Two,



which depends on the production of that year, or the slope at G must equal the slope at Z'. The case in Year One is more complicated because the slope of the total cost curve at D is changing discontinuously. The forward slope at D must be greater than the slope at Z and the backward slope at D less than the slope at Z. Since there are three equations and three unknowns—production in Year One, production in Year Two, and the amount of goods which are produced in Year One and stocked to sell in Year Two—the problem is determinate, and the entrepreneur's demand for labor in Year Two, which depends on the production of that year, in most cases will be less than if an amount of labor greater than that consistent with optimum output had not been imposed in Year One.

The limit on the size of the imposed labor cost is smaller if the number of people hired is determined solely by the entrepreneur than if mutually by the trade union and the employer. Let us assume a negotiated annual wage rate of \$2,000. The employer will estimate for different outputs his total costs at this rate and in conjunction with

his total revenue curve will choose the output which gives him the greatest profit. As he knows his production function and the price of labor, he can determine the number of people, say twenty-five, which he can most profitably hire. Can the trade union force him to accept twenty-six or more workers at that wage? If the trade union's bargaining power is greater than the entrepreneur's, it can, as any other monopoly, absorb the profits as an economic rent. It could do this either by forcing the entrepreneur to hire more workers than he would wish to at the negotiated wage rate or by a policy of wage discrimination. The trade union can force the entrepreneur to hire more than he wishes by presenting him with only two alternatives: twenty-six workers at \$2,000 a year or no workers at all. As long as the first alternative allows the entrepreneur some profit he will, if his decision is an economic one, prefer it to shutting down. If the trade union's bargaining power is strong enough it can theoretically increase its demands until the entrepreneur's total cost is just a little smaller than his total revenue. The more liquid the entrepreneur's capital and the less prevalent annual wage guarantee plans, however, the more likely that the entrepreneur, threatened with a continuation of these tactics, will shut down and invest his capital in a more profitable business even though he may not have experienced any actual loss.

The effects of the adoption of an annual wage guarantee plan by the entrepreneur of a non-seasonal firm will depend largely on whether the imposed labor cost is greater than what the firm would have absorbed without the plan. If it is not greater, all the economic effects may be channeled through the resulting changes in the labor supply. The effect of greater security on the labor supply is virtually an unexplored field and the author, as yet, has not studied it sufficiently to come to any conclusions. Interviews with union men, primarily with those in seasonal industries, however, imply that security is sufficiently prized for many to accept a 5 to 10 per cent wage cut to get it. That it is so prized by those in non-seasonal industries is not so likely and that union leaders would exchange any general wage cut for guarantees, especially in the reconversion period when elimination of overtime alone will drastically cut weekly paychecks, also seems unlikely. A secondary effect on the labor supply may be traced through the probable reduction in the number of working wives of men granted the security of annual wages.

The effect of security on the quality of the labor supply is briefly discussed by Sir William Beveridge in his *Full Employment in a Free Society*.⁹ He believes that under his plan of full employment, which

⁹W. H. Beveridge, *Full Employment in a Free Society* (New York, Norton, 1945), pp. 194-98.

affords greater security than the annual wage guarantee, the possible loss of efficiency is outweighed by the gain from eliminating opposition to technological change. This outweighing advantage does not, however, exist under annual guarantees. Rather, opposition to technological change culminates to the end of the contract period and is all the stronger since that is the only time when introduction of machinery can force guaranteed employees out of work. Once the negotiation is over, opposition to new machinery which can be absorbed by normal turnover and expansion will be small.

The effect of annual wage guarantees on industrial discipline would not be as great as that of a more continuous guarantee of income, such as Beveridge describes. In contrast to the fear of idling on the job, other employers have felt that once a worker has some measure of security he will be a more productive worker and that in general labor relations will be improved. The question of whether the supply curve of labor in terms of quantity and quality moves right as a whole, or over a particular range, as the security of the worker increases needs to be further investigated.

If the annual wage guarantee plan imposes a labor cost greater than that which would have been absorbed without the plan, additional effects may be expected. By hypothesis the trade union would gain for the year of the guarantee a larger total payroll paid to its members. Whether the latter condition can be continued in the long run depends on whether the entrepreneur or the trade union has greater bargaining power. There is no measure of this power or of the ability to use it. Acting as positive limits are the possible bankruptcy of the entrepreneur, on the one hand, and the trade unionists collective refusal to work, on the other. If the number of workers hired is mutually determined by the entrepreneur and the trade union, a condition under which this case is most likely to occur, the range of bargaining is extended beyond that which would be established under unilateral hiring, but the determinants of the relative strengths of the two parties and the positive limits on them are the same. The widening of the area of bargaining makes it possible for a trade union whose bargaining power is far greater than the employer's to approach more closely the latter's limit without forcing him into bankruptcy. It also allows an entrepreneur with extreme power to approach more closely the trade union's limits without forcing a strike.

The relative bargaining powers of the trade union and the employer under both types of collective bargaining will be affected primarily by whether the product can be stored from one year to the next, and secondarily by the firm's profits, the firm's cost position within the industry, and the substitution of less expensive factors.

If the entrepreneur cannot store his product, the relative bargaining powers—for the moment we exclude the effect of the secondary factors—will not, regardless of the size of the imposed labor cost, change from one year to the next. The trade union's opportunity to impose, year after year, a labor cost greater than that consistent with the firm's optimum output will remain the same. If, however, the product is storable, the entrepreneur will probably reduce his production and his demand for labor in Year Two. The trade union's bargaining power will be decreased and its opportunity to impose an annual wage guarantee greater than that consistent with the firm's optimum output in Year One is reduced.

Among the determinants of the relative bargaining powers are the modifying secondary factors already mentioned. Profits over past years, and at the end of the year, indicate the limits to which the trade union may push its demands and also indicate the possible lockout strength of the entrepreneur. The cost position of the firm in the industry is closely related to the question of profits. Low cost firms have large profits; high cost firms, low ones. The long-run picture of possible competition of "non-annual wage guarantee firms" with their more flexible and in some cases lower labor costs presents the same complications as does the more familiar non-union firm and union firm competition. If the substitution of a less expensive input factor for labor is possible, the demand for labor and thus its bargaining power are decreased. As long as the imposed wage bill is such that the wages paid to any worker are greater than his marginal revenue productivity, the entrepreneur will wish to substitute either machinery for that labor, or by dilution of skills, cheaper labor.¹⁰ This condition exists whenever the amount of payroll guaranteed is greater than the total labor cost needed to produce the optimum output, since even if the wage rate is kept at its old level, the marginal revenue product of the imposed additional workers will be below this wage. Substitution of machinery for labor is especially important when a change in conditions causes a larger output than formerly to be the optimum one, because the entrepreneur will, under the guise of expansion, increase the amount of machinery relative to the amount of labor.

In the long run if the trade union's bargaining power is consistently greater than that of the employer's, it can continue to get a larger than optimum output return for labor up to the point of forcing the entrepreneur out of business. If the payroll is consistently larger than the marginal revenue productivity of the workers, economic rent, either due to restricted entry to the industry or an unique advantage of the

¹⁰ The condition of union shop imposed at the beginning of this discussion limits substitution of cheaper labor primarily to cases where dilution of skills is possible.

firm, must exist. The entrepreneur's losses or gains under different conditions have in large measure been implied since they are complementary to the trade union's losses or gains. To the less measurable advantages for the firm, increased productivity and improved labor relations, may be added the claim of reduced labor turnover. Although there are no satisfactory statistics proving that labor turnover is smaller in plants with annual wage guarantee plans, it is very probable. Because of greater retention of more skilled and efficient workers there is some reduction in costs which, however, may be offset by an increase in costs incurred through greater difficulty in getting rid of inefficient workers.

The firm in a seasonal industry has been isolated in the discussion because it is easier to handle after a more general analysis has been set up. In discussions of annual wage guarantee plans it is this type of firm which people think of as being both most in need of such a plan and yet presenting the most difficulties in the way of its adoption. Three types of seasonal industries may be distinguished: (1) industries where the supply of raw materials is subject to large seasonal variation while the consumer demand for the finished product is constant; (2) industries where the supply of raw materials is constant but the demand for the finished product is variable, and (3) industries where both the supply of raw materials and the demand for the product are variable. Annual wage plans have been successful in the first type of seasonal industry—Hormel in meat packing, Procter and Gamble in soap—but rarely in the other two, and it is in the latter type of industry, consumer durables and producers' goods, where unions today are asking for annual wage guarantee plans.

The firm in a seasonal industry, even though its annual output is its maximum profit one, has excess capacity at all times except at the peak period of production. If the entrepreneur can wipe out this excess capacity by continuous production at a constant level, his fixed costs and thus his total costs would be lower as he would require less plant for a given output. That employers are aware of this is indicated by the following: "The Ritter Dental Manufacturing Company made a study which indicated the definite seasonal character of their business. They then determined the additional value in inventory required to manufacture on a level basis. The result of their calculations showed that the cost of carrying additional inventory, both in storage expense and in interest on investment was more than offset by the cost of the additional investment which would be required in machinery and buildings to manufacture according to seasonal trend."¹¹ The guarantee

¹¹ E. S. Smith, *Reducing Seasonal Unemployment* (New York, McGraw-Hill, 1931), p. 237.

of an annual wage, by making a much larger part of the entrepreneur's cost a fixed cost, generally makes a constant level of production more economical than a seasonally fluctuating one. The guarantee by forcing a constant level of output will not, however, reduce costs below those incurred before the plan was in operation unless the entrepreneur were previously inefficient.

If the factor market is seasonal, production may be leveled by the storage of raw materials; if the product market is seasonal, by the storage of the semi-finished or finished product. The storage costs, which include the expense of physical storage and the interest on money tied up in the stocks, will vary as between firms in the same industry as much as between industries. Roughly speaking, the more excess warehousing capacity, the better the entrepreneur's credit, the smaller the physical storage cost in relation to the value of the product, then the larger is the quantity which is profitable for the entrepreneur to stock. Actual storage cost may be high because of pure bulk, because of the need for excessive measures to prevent deterioration or stealing, or because of anticipated losses through obsolescence. How these difficulties may affect decisions in a particular industry is indicated by the National War Labor Board's comment in its decision in the recent Steel case: "Apparently the products of this industry and the buying habits of its customers do not lend themselves readily to the manufacturing and storing of inventory. There are some minor exceptions, like standard pipe, wire products and semi-finished items. The great variety of sizes, shapes, finishes, treatments, and grades demanded and the physical problems of storing, handling, preserving against deterioration, when coupled with the sporadic buying characteristics of the automobile, heavy construction, railroad and oil-well industries make it plain that as a practical matter *employment cannot be steadied by manufacturing for inventory when customers decline to use the production of the steel industry.*"¹²

The National Industrial Conference Board made a study in 1940 of 203 companies, employing 1,200,000 men, which had made some attempts to level out their employment. The methods most frequently used by entrepreneurs were: 64 per cent stocked finished products; 49 per cent transferred workers to where needed; 41 per cent used a flexible work week; 40 per cent trained workers for more than one job; 23 per cent started to manufacture a product the demand for which was complementary with the demand for their original product; and 22 per cent scheduled maintenance work in slow production periods.¹³

¹² U.S. N.W.L.B., *Report of the Steel Panel, Case 111-6230-D* (14-1, et al.), p. 148.

¹³ N.I.C.B. *Reducing Fluctuations in Employment* (Stud. in Personnel Pol., 27, 1940), p. 9.

Actual practices of entrepreneurs are described in some detail in order to show what can be done to even out employment over the year and, therefore, to what extent annual wage guarantee plans are feasible. It is obvious that certain technological requirements, coupled with a seasonal demand of great amplitude and uncertainty, would make adoption of these plans impracticable in some industries. The law governing penalty overtime payments recognizes these difficulties and within limits exempts from penalty overtime payments employers who guarantee an annual wage.

The firm in a seasonal industry theoretically presents the same problems as does the firm in a non-seasonal industry. Our previous differentiation between the entrepreneur who can stock his product in Year One to sell in Year Two and the entrepreneur who cannot becomes a differentiation between the entrepreneur who can stock his finished product (or the factor whose supply is seasonal) in his slack season to sell in his busy season, and the one who cannot. The solutions are the same. The economic argument for determination of the maximum profit output for a year of guarantee has not changed. The only part of the problem which has changed is the length of the guarantee in relation to the time periods being discussed. This becomes important if the entrepreneur cannot level out production over the year, either by piling inventory or by some other means. In agricultural or food processing industries, where the busy season may be for only a few months of the year, the annual guarantee as we have described it is not applicable. To guarantee a fixed number of men an annual wage totaling a larger than optimum output payroll, or even equal to or slightly less than the optimum output payroll, would mean that the entrepreneur's labor supply would be too small in peak seasons, too big in slack ones. The possible solutions are to guarantee the annual wage of only a percentage of workers, to shorten the guarantee from an *annual* wage to the number of months the industry actually works, or to dovetail employment of firms in different industries. The latter, which is most preferable from society's point of view, is not always possible. Doing away with all seasonal unemployment may not be desirable since part of the labor supply, housewives, college students, etc., want only seasonal work.

Although the effects of a guarantee adopted by a firm which can even out its production over the year are generally the same as if the firm were in a non-seasonal industry, there are some differences. The guaranteed worker gains a larger increase in security since the incidence of layoff in a seasonal industry is much greater than in a non-seasonal one. The number of unemployed in the union will increase but each worker will be more steadily employed over the year. Although the

demand by the firm for labor in terms of hours may be the same or greater, its demand for labor in terms of workers will be less. Increase in fixed costs will make it profitable for many employers, for whom it was previously unprofitable, to level out their production. They will attempt to pass along the cost of maintaining inventories to some other firm in the chain of production or, if possible, to the consumer. One firm may wipe out its seasonal unemployment only to create it in another firm.

Adoption of an annual wage guarantee by an industry. It is possible that, with the extension of industry-wide trade union contracts, a whole industry may adopt an annual wage guarantee plan. As we have seen, if the guarantee imposes a labor cost which year after year is equal to or less than the labor cost consistent with a firm's optimum output, it will have no effect on the firm's volume of output or demand for labor. If all firms in an industry adopt such guarantees their initial total demand for labor hours will also be unchanged. To the extent that the firms, however, employ fewer workers for longer hours, as would be typical of those in seasonal industries, the industry demand for labor in terms of number of men will decrease. The supply curve of labor to the industry may shift to the right, resulting in a lower average unit cost and, depending on price policy of the firm and demand for its product, possibly greater production and employment. Regardless of the effect on average unit costs, the marginal cost of each firm will be lower and competition will, in the long run, drive down the product price. Recognition of discontinuity in the marginal cost curve, corresponding to the kink in the total cost curve of each firm, will temper the price competition. In the long run, however, profits will fall, disinvestment take place, and the industry demand for labor decrease.

If the guarantee imposes, year after year, a labor cost greater than that consistent with each firm's output, either because of poor planning by the entrepreneur or the extension of collective bargaining to include the size of the labor force, the industry demand for labor will decrease still more. If the industry has a competitive product market and it is assumed that firms are identical, each firm will earn "normal profits." The firms will react as they would to an increase in the cost of labor and, if they have great enough bargaining power, will substitute machinery for labor; if not, they will raise the price of their product. If the total demand for the industry's product is inelastic, revenue will fall, more disinvestment will take place, and there will be a greater decrease in the industry's demand for labor. If the firms are not identical or if the industry's market is typified by monopolistic competition, the high cost firms will be forced out of business. The remain-

ing firms, finding that the demand for their product has increased, will expand production and in so doing will tend to substitute machinery for labor. The ultimate effect on the price of the product is indeterminate because it depends on several variable factors: at what point of its cost curve each firm starts expanding from, the size of the profit margins of each firm, the elasticity or inelasticity of demand for each firm's product, etc. The plan will reduce the number of firms in the industry and increase the average size of those remaining. It will decrease both the short-run and long-run demand for labor by the industry and possibly raise the price of the product. From our analysis of a single firm in an industry typified by monopolistic competition and with a product which can be stocked from one year to sell the next, we can conclude that the decrease in demand for labor in this type of industry would probably be the greatest.

If the industry adopting guarantees is a seasonal one which has been induced to level production, it will attempt to force other industries—its distributive outlet, for example—to bear the increased cost of maintaining inventories. The adoption of such guarantees by one or a few industries may merely transfer the problem of seasonal unemployment to industries which previously were free of it.

The trade union, by force of bargaining power, might for a time maintain employment in the industry at an inflated level. The rate of profit in the industry would fall, however, and eventually capital would withdraw to more profitable industries. Therefore, in the long run, employment in the industry would decrease. If, however, as already pointed out, the supply curve of labor to the industry moves to the right, pushing down the wage rate as more people are attracted by the greater security, employment in the industry may increase without artificial support.

Adoption of an annual wage guarantee by all industry. General adoption of annual wage guarantee plans by all industry has been considered by some to be a means of minimizing the business cycle and unemployment. This favorable conclusion generally follows from observation of the successful working out of its adoption by a single firm—usually George A. Hormel and Company—or from tracing the favorable effects of such a plan on the consumption function and *ipso facto* on the national income.

It holds in this problem, as elsewhere, that one cannot argue from the particular to the general, from one firm's experience to society's. George A. Hormel and Company, which has had an annual wage guarantee plan since 1931, is the only factory in Austin, Minnesota, and its policies affect every family in that community. Therefore, proponents of annual wage guarantee plans state that the company's

successful experience "suggests that making part of our economy more stable will help to make the remainder more stable, and at the same time will give rise to new job opportunities."¹⁴ The position of one firm in one town is not, however, analogous to that of thousands of firms with different cost curves competing among themselves in the same markets. Although Hormel's happy experiences with their plan, which incidentally has never been tested by depression,¹⁵ might suggest that general adoption of such plans would have a favorable effect on society; it can do no more than that, merely "suggest."

The argument favoring these plans, which is developed from their influence on consumption, has more validity. Before discussing it, however, let us set up assumptions concerning the general adoption of these guarantees:

1. An annual wage guarantee plan is generally adopted by all employers;

2. The employer alone decides the size of his labor force;

3. The guarantee is equal to the total payroll consistent with each firm's optimum output;

4. The guarantee is for one year and is renegotiated annually; and termination dates of the guarantees, as those of present labor contracts, are scattered over the year.

5. If a firm goes out of business during the guarantee year, the government takes over the guarantee for the remainder of that year; If the above program were enforced by government decree, what would be the effect on the business cycle? On employment?

A general guarantee will increase the rigidity of the cost structure in so far as industry does not have wage contracts prior to its introduction. Because it will make labor a fixed cost for a period of one year and, therefore, increase the entrepreneur's risk it will deter investment. On the other hand, a general guarantee will require greater investment by industry in the larger inventories necessary for leveling production. During the first years of the plan the velocity of money will increase as people with more secure incomes will save less. The inflationary effect will be felt until a new spending level is reached. Since we are primarily interested in whether guarantees can mitigate cyclical unemployment, let us assume that they have been generally adopted and for some reason the upper turning point of the cycle has been reached and the downswing has set in.

As a larger volume of inventories has been created the entrepreneur's

¹⁴ United Steelworkers of America, *Brief Submitted . . . to . . . N.W.L.B.* Case No. 111-6230-D14-1, et al., p. 57.

¹⁵ Not until 1936 were over 50 per cent and not until 1938 over 95 per cent of their employees covered by the guarantee.

desire to cut production will be greater; but he cannot economically cut production unless his total fixed costs including labor are small. Since this cost pattern is rare, production and employment in the economy as a whole will be more gradually curtailed and the upper turning point or crisis be less sharp. Wages and salaries paid out will not drop abruptly because wage cuts and firing of workers for, say, an average of six months are impossible.¹⁶ The usual manifestations of a crisis which will immediately appear are a fall in prices, losses on the part of entrepreneurs, bankruptcies, and a smaller volume of investment. Output, employment and wage rates will continue much as before.

The stability of output and employment at the crisis will be a new phenomenon, but that of wage rates will not be. The latter, therefore, cannot be considered a special effect of the general adoption of annual wage guarantee plans. Since the government will take over the guarantees of firms going out of business, employment and wage rates are both maintained and it is thus reasonable to assume that wage earners will maintain their demand. Many proponents of these guarantees identify the effective demand of wage earners with that of consumer purchasing power and imply that maintenance of the latter will ensure maintenance of employment. These ideas are implicit in the following statement of the labor panel in the recent Steel Case: "*The maintenance of purchasing power sufficiently high to maintain the present employment level is precisely the purpose of the annual wage.*"¹⁷

The fact that wage earners will continue to spend the same amount as they did before does not mean that total consumer demand will be the same as before. All consumers are not wage earners. Lower dividends and entrepreneurial losses will mean some cut in consumer consumption. Consumer expenditures most sensitive to the business cycle are those spent on luxuries, on goods and services which the wage earner does not buy. Among items classified as those with a high income elasticity are the following: meals and beverages purchased in dining cars, fur storage and repair, jewelry and watches, domestic service, brokerage charges and investment counseling, taxicabs—fares and tips, admissions to theater and opera, etc.¹⁸ It is true that only a small amount of total expenditures fall in these categories, but it is these expenditures which will fall first and it is in

¹⁶ Since the termination dates of the guarantees are scattered over the year, six months would be the average of the unfulfilled portion of annual guarantees in force when the crisis strikes.

¹⁷ U.S. N.W.L.B., *Supplemental Opinion of Labor Members of the Panel*. Case III-6230-D (44-1, et al.), p. L-43.

¹⁸ *Survey of Current Business*, Jan., 1945, p. 10.

these in which we are most interested, because of the limited time element in this type of guarantee.

It is also possible, of course, that if workers are well informed both as to general economic conditions and those in their own industry and plant they, too, will restrict their expenditures. This seems unlikely for three reasons: (1) Wage earners are not that well informed nor is it necessarily to the interest of their union to so inform them. (2) Many workers spend most of their earnings on necessities and cannot greatly restrict their expenditures. (3) People do not change their consumption habits *in advance* of a decline in income; in fact, legal contracts (rent, installment buying, etc.) and inertia delay curtailment even after income has dropped.

Let us grant that annual wage guarantees will maintain consumer purchasing power at the upper turning point of the crisis, at least for a period of six months. Is this maintenance of purchasing power sufficient to stave off a depression?

Although there are different beliefs as to the cause of depressions there is general agreement that decline in business profits until losses are eventually realized and a falling off of investment are among the main manifestations. Not until profits and investment are revived will an upswing set in. The cure of a depression does not necessarily have to be the removal of the causes which created it, but it must be, if we are to retain our present economy, something which clearly will encourage investment. Impetus to invest may originate in the possibility of higher profits because of the lowering of costs through technological advances, falling wages, falling interest rates, etc.; or investment may be directly stimulated by an increased demand for more producer goods either on part of private business or the government. Mere maintenance of purchasing power cannot induce net investment expenditures and thus prevent or minimize a depression. Net investment is derived from consumer demand only if the latter increases, so that existing plant and equipment is insufficient to satisfy it. Merely maintained consumer demand does not require for its satisfaction any additional producer goods. Maintenance of consumer purchasing power can only affect investment if it is upheld over such a long period that the plant and equipment satisfying that demand wears out and creates a need for replacement investment. This effect is unlikely because of the very shortness of the guarantee. The maintenance of purchasing power can prevent a depression, defined in terms of mass unemployment, only if it continues until investment revives. This actually happened, although without artificial support, in the minor 1923-24 recession.

If the guarantee were for a longer period of time so that wage

earners' demand could be maintained, say, for two years, it would probably—through eliminating the depressing multiplier effects of loss of investment and by giving time for greater liquidity and creation of demand for replacement investment—both decrease the amplitude and length of the fluctuation. This, although theoretically an interesting case, has little practical application since it is hard to conceive of a voluntary or imposed guarantee of four years. Similar results in lesser degree would be obtained, however, in so far as the trade unions can, year after year, by superior bargaining power force the employers to hire more than they otherwise would have hired. If *all* industry were so treated the industrial structure would adjust to the increase in the cost of labor and would not, as under partial adoption of the guarantees, be continually distorted to meet the increasing labor costs in different sectors as the latter adopted guarantees. This situation is hard to picture as a practical procedure since it implies either that each trade union has greater power than the firm with which it is bargaining or that the government will enforce by decree an over-all, inflated employment level. During the period of adjustment new investment generally would be deterred by the increase in labor costs which would initially reduce profits. In the early stages some new investment would occur as capital shifted to industries using relatively less labor. New investment would also be induced from the increase in consumption out of the higher incomes of the inflated employment level. It would not continue to be induced, however, when the effects of the increased income on money velocity and the income itself leveled off. Since income that previously was part of profits would, under the revised assumptions, become wages, some redistribution of the national income would be effected in the short run. Gradually new investment, deterred by small profits, would decrease and unemployment, as guarantees terminate, would increase. The former redistribution of income would be reversed and probably the favorable effects outweighed. The whole process would take several years.

The question of whether over-all guarantees with government backing can be successfully fitted into complementary federal fiscal policies cannot be discussed here. General adoption of annual wage guarantees under the original five assumptions will not prevent a depression and cyclical unemployment; it will merely postpone them.¹⁹ Annual wage

¹⁹ The fact that there are larger inventories in existence does not necessarily mean that the drop in production, when it comes, will be more severe. The increase in inventories is necessitated by the leveling of production and, although inventories may be at a higher level at the beginning of the depression, they also cannot fall to as low a level as they would if there were no guarantees.

guarantees will wipe out seasonal unemployment. The solving of seasonal unemployment will mean that no workers are partially unemployed but a larger number are fully unemployed. This may be desirable. Continual insecurity of employment and frequent unemployment is destructive of human resources. Attempts to dovetail relief and public employment with intermittent private employment, especially when people have attachments to particular industries and even firms, are more difficult than to provide for outright unemployment. In the latter case people are more willing to learn new skills and build up new employer-employee relations. An *annual* wage guarantee is not, however, of long enough duration to solve the problem of cyclical unemployment. Even if such guarantees of the necessary duration—that is, of the average cycle—were possible we would be confronted with a new problem of a large “hard core of unemployment.” There would be no *cyclically* unemployed; but a greater number of secularly unemployed.

Proposed annual wage guarantees do not increase the real national income; they merely redistribute it. If our present economy were a full employment economy, general adoption of these guarantees would be highly desirable. It would substitute the economic cost of keeping idle goods for the more than economic cost of maintaining idle labor and plant. But in a society which has trouble in providing employment for all its members, a situation in which 90 per cent of the labor force is fully or partially employed and 10 per cent unemployed may be preferable to one where 80 per cent are fully employed and 20 per cent unemployed.

BRITISH POLICY AND A WORLD ECONOMY

By E. M. BERNSTEIN*

I

The primary economic objective of the United Nations is the restoration of a unified world economy in which international trade and investment can be carried on without the restrictions that isolate countries and the discriminations that divide them into *blocs*. While international trade and investment cannot be entirely freed from restrictions and discriminations, such practices can be kept within moderate limits through international agreement and under international supervision. In this way, progress can be made at once toward a world economy.

The restoration of a world economy requires the participation of all the great trading countries in a common program directed toward this end. The essentials of such a program are already clear. It would require international coöperation to expand trade and investment by reducing tariff and other barriers to trade, by facilitating international investment for productive purposes, and by maintaining orderly exchange arrangements. If the United States and Britain were to adopt such a policy, there can be no doubt that they would have the support of the other nations. On the other hand, if these countries were to pursue conflicting policies, the restoration of a world economy would be impossible.

The program for international economic coöperation has received widespread approval in the United States. In large part this is a reflection of the conviction that a world economy, where exporters sell and importers buy in the best markets, offers the greatest general advantages from international specialization. It would be a mistake, however, to overlook the tremendous importance the American people attach to international economic coöperation as part of the broader program for a peaceful and prosperous world. The American people are committed to world organization through the United Nations. They have shown through adherence to the International Fund and Bank,

* Professor of economics at the University of North Carolina, Mr. Bernstein is now on leave with the Treasury Department. The views he expresses are his personal opinions only.

through expansion of the Export-Import Bank, and through the extension of the Reciprocal Trade Agreements act that they are prepared to implement political coöperation with economic coöperation.

In Britain, public opinion is not fully formed on the program to restore a world economy. As in this country, there seems to be a strong preference to try, if possible, to establish international responsibility for the solution of international economic problems.¹ The general attitude is that in the long run, British prosperity depends on the widest possible interchange of goods in a system of multilateral trade and payments. But there are short-run problems of enormous magnitude with which Britain is immediately confronted. And there remains the question whether the world economy that collapsed in the 1930's can be made to work again in the post war period.

II

These uncertainties have made it possible for small but influential groups to urge a policy intended to serve what they regard as Britain's special interests in international economic affairs. They assume that Britain can secure advantages from planning her trade within an area responsive to a British policy largely reflecting British needs. At best, such a policy may be no more than an attempt to isolate a so-called high trade area from what are regarded as external forces of depression originating in an underemployed area, that is, the United States.² At worst, it may involve an attempt to exploit the favorable position of a large importing country in a world in which export markets are inadequate to absorb the surplus of countries highly dependent on export trade.

Strict classification of the opponents of British participation in a world economy is impossible. Three major groups are clearly evident, although there is much in common in the programs they propose.

One group advocates a policy of bilateral trade arrangements. They deny that general multilateral trade does bring about the largest volume of trade and the greatest advantages from international specialization. They hold that for Britain, particularly, multilateral trade offers no significant advantages while exposing her to the risks of instability abroad. Any decline of imports in one country, they say, necessitates a general contraction of trade; otherwise countries that maintain their

¹ An able plea in favor of British participation in the program for a unified world economy is made in the Labor publication, *Political and Economic Planning*, in the pamphlet "After Bretton Woods," No. 225 (London), September 15, 1944. See also the editorial in *The Manchester Guardian*, September 17, 1945.

² This has been the dominant theme of many articles in *The Economist* (London). See particularly, "A High Trade Area," September 22, 1945, pp. 404-06.

imports will be stripped of their monetary reserves. In contrast to this, they argue, Britain could enter into bilateral agreements with a number of countries for the import of their products with payment to be made in the form of an equivalent export of British products. Such bilateral agreements would assure a volume of international trade essential to the needs of both countries. In time, the bilateral agreements could be broadened to cover an enlarged sterling area which could secure for itself the benefits of multilateral trade on a limited basis through central clearing in London.³

A second group advocates a policy of increased state control of international trade. They urge that the British government enter into long-period agreements with other governments for the bulk purchase of staple commodities, through a government trading agency. Payment for such purchases would be made in sterling which could be used only to buy British products. Such agreements, they argue, would not only assure Britain a large and steady flow of imports, but would also provide a market for British exports in an amount adequate to meet her import needs. While this group gives greatest emphasis to bulk purchase by the government, they would place other imports under the supervision of import boards, to secure the most effective use of the foreign exchange resources accruing from British trade and investment.⁴

A third group advocates a policy of continued maintenance of imperial preference and the sterling *bloc*. They hold that the economic and political future of Britain depends upon the strengthening of the ties between Britain and the members of the Commonwealth. On the economic side, they favor the continuation and the extension of the trade preferences under the Ottawa Agreements of 1932. On the financial side, they favor the retention of many of the wartime devices which permitted transferability of sterling among the countries of the sterling area and strict control of transactions with countries outside the sterling area. While economic advantages are claimed for these arrangements, the fact is that this group ultimately favors such a policy for political rather than economic reasons.⁵

These various groups have in common their support of a policy to

³ T. Balogh, "The Importance of Multilateral Trade for Britain," *Oxford Inst. of Stat., Bulletin*, August 12, 1944; Paul Einzig, "Schachtian Devices Reexamined: Bilateralism v. Multilateralism," *The Banker* (London), September, 1944, pp. 86-89.

⁴ For a statement of this view, see the speech by Norman Smith, Labor member for Nottingham South, *Parliamentary Debates* (Hansard), House of Commons, August 20, 1945, pp. 372-78.

⁵ Lord Beaverbrook and L. S. Amery are outstanding advocates of Empire trade preference. See Lord Beaverbrook's editorial in *The Sunday Express* (London), September 16, 1945, and L. S. Amery's letter to *The (London) Times*, September 15, 1945.

establish a British economic *bloc*. They differ among themselves on the principal objectives to be attained and, to a lesser extent, on the measures to be used. The supporting arguments for this policy rest so completely on an assumption of special conditions and special needs that it becomes difficult to find an acceptable basis for critical examination of the policy advocated by these groups. No one can deny that state control of international trade can be used to secure a steady flow of imports through governmental agreements and that imports can be diverted in this way from less urgent to more urgent needs. No one can deny that it is possible to secure more favorable terms of trade by exploiting the strong position of a large importing country in a world of inadequate export markets. But the policy of a British economic *bloc* cannot rest on such special cases.

If a world economy could bring about a large expansion of trade, the volume of British imports could be increased and British needs could be met more fully without discriminatory arrangements through state trading organizations. And a large expansion of world trade, within a system of multilateral payments, could increase the aggregate gains and Britain's advantages from international trade. There are no economic benefits from a British *bloc* that could not be secured more fully with an effective world economy; and there are many dangers to Britain and the entire world that would arise from a conflict between a British *bloc* and, say, an American *bloc*. The argument for a British *bloc* ultimately rests on the implicit doubt that a world economy can function. It is important to realize this, for the strength of these groups does not derive so much from the program they advocate as from the widespread fear in Britain that a world economy may not work.

The advocates of the policy of a British economic *bloc* have a tactical advantage in the present debate, for Britain still has the extensive controls which were instituted during the war. In brief, these controls involved the mobilization and conservation of foreign exchange resources in Britain and the sterling area. The use of foreign exchange was strictly limited by complete control of imports and payments outside the sterling area. Imports from the sterling area and other expenditures within this area were paid for in sterling which was held in the form of sterling deposits or treasury bills. Sterling was made non-convertible and its transferability limited to countries within the sterling area. British-owned foreign assets were vested by the treasury and used for war expenditures abroad. The dollars and other convertible currencies earned by sterling area countries were placed in a common pool and were allocated for use where they were most essential for the war effort. These measures enabled Britain to conserve foreign

exchange to assure herself of essential supplies during the war; they could be used for similar purposes after the war.

As a matter of fact, until Britain's post-war balance-of-payments problems are solved, some of these controls will have to be retained. It is inevitable that consideration should be given to the possibility of continuing and even extending such arrangements through bilateral agreements if they become the only means of meeting the post-war problems. But the fact is that few people believe in a British economic *bloc* for its own sake. If Britain could secure aid in meeting her post-war problems without the use of these wartime devices, the greatest objection to acceptance of the program for a world economy would disappear in Britain. Without such aid Britain would be compelled, by default, to seek a solution to her payments problems through bilateral agreements within an enlarged sterling area.

The hesitation and doubt on British international economic policy are understandable. They are not wholly due to the special post-war problems with which Britain is now confronted. Among the great industrial countries, Britain is almost unique in her dependence upon imports of food and raw materials. For this reason Britain stands to gain to an unusual degree from the efficient functioning of a world economy. For the same reason, however, a breakdown of the world economy would seriously affect Britain. The disastrous experience of the 1930's has made many Britons cautious. The advantages of expanded international trade and investment are admittedly great. But there may be defects in the system. The plans for international economic coöperation have provided new safeguards against the breakdown of the world economy. But are these safeguards enough?

These are the doubts that have troubled the British people. In explaining the attitude of caution toward the program for international economic coöperation, the former Chancellor of the Exchequer, Sir John Anderson, said:

We emerge from the struggle with a gravely distorted economy, with an enormous burden of external debt and a balance of payments problem such as we have never before had to face. The system of international economic collaboration to be established now must profoundly affect our ability to play any useful part in the affairs of the postwar world and may even involve our very standards of life. We must determine our course of policy not in relation to this particular plan or that but upon a review of our situation as a whole. We must not assume that the cure for all our troubles was found at Bretton Woods. The time is at hand when we must decide and we shall do so heartened immensely by our knowledge of the part which America is clearly determined to play.⁶

⁶ Address to the American Society, London, July 4, 1945.

The attitude of the Labor Government on international economic coöperation does not differ significantly from that of its predecessor.⁷ This is to be expected. Britain's international economic policy will be determined not with reference to broad principles, but on the basis of practical answers to these urgent questions: Can Britain meet her post-war balance-of-payments problems without a continuation of the wartime restrictions? Can Britain assume the risks of full participation in a world economy?

III

Britain's international payments position requires the solution of three distinct problems. The first is to restore a balance in her current international accounts by expansion of British trade. The second is to finance the deficit in the British balance of payments during the post-war transition. The third is to make some permanent arrangement on the sterling balances accumulated during the war.

1. The most important British problem is to restore her export trades as quickly as possible to the level necessary to pay for the imports essential to the British economy. This is in a sense the critical problem. On it depends the obligations that Britain can safely assume in financing her balance of payments in the transition period and in funding the sterling balances. Unless Britain can with reasonable assurance balance her current international payments after the transition period without the retention of wartime controls, she can give only qualified adherence to the program for a world economy.

In 1938, retained British imports amounted to about 4,300 million dollars. Exports of British products amounted to about 2,300 millions. The excess of merchandise imports was largely offset by net earnings of 1,000 millions from overseas investments, 500 millions from shipping and something less than 200 millions from banking, insurance and similar financial services.⁸ This balance of payments has been seriously impaired by the war. Net receipts from foreign investments have been reduced by nearly one-half by sales of British-owned foreign assets. Receipts from shipping and financial services have also fallen, although

⁷ As a matter of principle, it would be expected that the Labor Party would prefer a policy of international coöperation. "It would be strange indeed if Labour were to seem less willing than the Conservatives to commit their country to the paths of international coöperation. It is justifiable ground for pride among Labour men that the Party has always been internationalist, always favoured the development of international institutions and their extension from the political sphere to that of economic affairs." Edward Charles, "Labour and Bretton Woods," *The Banker* (London), September, 1945, p. 139.

⁸ *Board of Trade Journal*, February 23, 1939. League of Nations, *Balances of Payments 1938* (Geneva, 1939), pp. 125-36.

they will recover with the expansion of trade. To make good these losses of income from abroad, British exports will have to be increased by 50 per cent over the 1938 volume—that is, from 2,300 millions to 4,500 millions, allowing for dollar prices one-third above the 1938 level. Such a level of exports would permit Britain to import the same volume of goods as in 1938, at a post-war cost of about 5,600 millions.

To expand exports to such an extent, Britain must increase the efficiency of her export industries. There can be no doubt that British industries are capable of developing technical efficiency of a character which would permit them to compete for a fair share of the world's export markets. Some of the newer war plants have developed and utilized the most modern industrial techniques. British engineering has, on the whole, been progressive during the war. But the older export industries, such as textiles, coal and steel, seem to suffer from unenterprising management and are far behind in their production methods. British opinion is alert to the significance of increased productive efficiency in these industries.

The immediate need for exports is so urgent that every British industry may have to be required to take full advantage of export markets. It is to be hoped, nevertheless, that in time less dependence will be placed on textiles and similar simple manufactures. While there will always be some demand for British specialties in these fields, the expansion of British exports must ultimately be concentrated in machinery, electrical equipment, chemicals and related fields, where innovation and technical progress are the bases for leadership. The fact is that the great industrial countries cannot continue indefinitely to export the simpler manufactured goods which countries begin to produce for themselves as they become industrialized.

Though British industries may be prepared to export in sufficient volume to meet this program, its achievement depends on the ability of the world to purchase British exports. If total world trade is large enough, Britain can sell sufficient exports without a serious deterioration in the terms of trade.⁹ In the 1930's, exports of British products constituted about 11 per cent of total world exports. With the elimination of Germany and Japan as major exporters during the next decade, Britain should have no difficulty in retaining in the post-war period at least this share of aggregate world exports. To export 4.5 billions of British products, assuming the same ratio in the post-war period,

⁹The term as used here does not necessarily mean a fall in export prices relative to import prices. A deterioration in the terms of trade should mean a fall in income in export industries at home as compared to income in export industries abroad. Properly interpreted, a fall in British export prices resulting from technical improvements does not involve a deterioration in the terms of trade.

world exports would have to be at least 40 billions. As a matter of fact, as world exports increase, there is some tendency for British exports to rise more than proportionately.

Can world exports be increased to this level? In 1938, total world exports amounted to 22 billion dollars. With a price level about one-third higher in dollars than in 1938, this would be equivalent to 30 billions at post-war prices. The minimum goal of 40 billions in world exports involves an increase of only one-third in volume over the pre-war level. Such a level of exports is a modest goal for a world with greatly increased ability to produce. The Bretton Woods program will facilitate economic reconstruction and the expansion of trade. The reduction of trade barriers will be of further help in this direction. If the United States maintains a high national income, world exports of 40 billions could be attained in 1948, and British exports should reach 4.5 billions.

2. With favorable conditions Britain may in about three years restore her current international economic position. In the meantime, she must find the foreign exchange resources necessary to finance her essential imports. To do this Britain will need help from the United States and the Commonwealth. This help, if it is to be most effective, should be prompt and generous; and it should take a form that will not aggravate Britain's balance-of-payments problem.

Britain's immediate problem stems in large part from the policies adopted by the United Nations under the leadership of the United States. The principle which guided the international financial relations of the United Nations after March, 1941, was mutual aid as manifested in Lend-Lease and Reverse Lend-Lease. This principle made it possible for each country to devote itself to the common war without diverting resources to producing goods for export to pay for supplies from the United Nations. Until this country established Lend-Lease, Britain used her accumulated gold and dollar resources and disposed of much of her foreign investments in order to maintain the flow of goods for the war effort. Production for export of necessity was given high priority as a means of paying for supplies from the United States. Lend-Lease was designed to enable Britain to continue to acquire supplies while devoting more of her resources to war purposes in Britain which had become the major staging area for the war effort of the Western allies.

In response to the new situation created by Lend-Lease, Britain reduced her export trade sharply until in 1944 it was only 30 per cent of the 1938 volume.¹⁰ Gradual reconversion of export industries was

¹⁰ *The Export Trade of the United Kingdom for the years 1942, 1943 and 1944*, Board of Trade, London, 1945.

begun in 1945 with the hope that by the end of war with Japan, exports would have been restored to the pre-war level. The sudden end of the war made it impossible for Britain to reach this level of exports and the immediate termination of Lend-Lease cut off imports under this program. It has, therefore, become urgent for Britain to find other means of financing essential imports until her exports reach 4,500 million dollars a year. Even with favorable conditions Britain will need three years to reach this export goal and to balance her international payments. In the meantime she must continue to import food and raw materials for her own economy and she must help meet the import needs of some sterling area countries. If this is to be done without severely restrictive measures, Britain will need aid.

The amount of aid that may be needed over a three-year period has been estimated by the British Mission on the order of 3 to 6 billion dollars.¹¹ Obviously, if Britain can maintain a tight program of imports and expand her exports more rapidly, the deficit may be less. On the other hand, if there is some delay in the expansion of British exports, the deficit may be somewhat larger. In one way or another, Britain will, of course, find the means to import during the transition. But if she can secure aid without unduly burdening her future balance of payments, Britain can more quickly abandon the wartime measures which involve a considerable restriction of imports from the dollar area and a greater degree of self-sufficiency within the sterling area. Failing such aid, Britain would feel compelled to continue her wartime trade and financial arrangements during the next few years and could consider full participation in a world economy only after an extended transition period.

3. As the result of the war Britain has incurred large overseas debts in the form of sterling balances (deposits in London or British treasury securities) held largely by the monetary authorities and banks in the sterling area. The greater part of these obligations was incurred in meeting Britain's war expenses overseas. Britain used this means to secure from sterling area countries the same kind of help that was secured from the United States through Lend-Lease and from Canada through Mutual Aid. The form in which this help was given has resulted in a large debt in liquid form which cannot under the circumstances be convertible into other currencies and may even prevent the resumption of convertibility of sterling for current trade purposes.

Britain cannot deal with this problem as an ordinary debt. To

¹¹ Statement by Lord Keynes on the British position, *New York Times*, September 13, 1945.

liquidate 14 billions of sterling indebtedness even over a period of 50 years would require annual payments of 550 millions a year on a 3 per cent interest basis. The expansion of Britain's pre-war exports by 50 per cent is difficult; but it can be done. To add to this an obligation of 550 millions a year, in addition to the indebtedness that will be incurred to finance the transition, would be beyond Britain's capacity, certainly within the next decade. To secure an export surplus of 550 millions a year to service the sterling balances would require in fact an expansion of exports on the order of 700 millions a year if imports for British use are not to be curtailed below the low 1938 level.¹²

In order to resume the convertibility of sterling, some means must be found to reduce the aggregate sterling indebtedness and to finance it without heavy interest charges. Britain can legitimately request the holders of sterling balances to reduce the aggregate of their claims as part of their contribution to the war. It is worth a good deal to India to have kept Japanese conquest from penetrating to that country; it is worth a good deal to Egypt and the Middle East to have kept German and Italian conquest from that area. The war payments which Britain met for the defense of these areas, when difficult political negotiations could not be undertaken and when the aggregate cost of the war could not be determined, should now be re-negotiated so that these areas and the British Empire countries assume a fair share of the cost of their own defense.¹³

It is not practicable to ask these countries to give up all of their sterling balances as their contribution to meeting the costs of the war. They have already made large sacrifices in providing the real resources for carrying on the war in return for payments that can be used only for deferred imports. For some of these countries, the sterling balances represent nearly all of their monetary reserves. A reasonable compromise can be made by reducing the sterling balances and arranging for their gradual liquidation. This would take account of the needs of the sterling area countries for monetary reserves and their obligation to share in the costs of the war.

¹² It is estimated that British exports involve on an average 20 per cent of imported raw materials. To keep British consumption of import goods fixed, any given export surplus must, therefore, involve increased exports 25 per cent above the surplus and imports of 25 per cent of the additional exports. That is, an export surplus of 550 millions could be financed by exports of 687.5 millions and imports of 137.5 millions for raw materials.

¹³ In all of these areas prices paid by Britain have been unusually high. As a matter of equity some adjustment could be made on this basis. In 1944, wholesale prices in India were 302, in Egypt 311 and in Iraq 556 as compared with 171 in England, all relative to the first six months of 1939. *Monthly Bulletin of Statistics*, League of Nations, April, 1945 (Vol. XXVI, No. 4-A), p. 121.

With a substantial reduction in sterling balances Britain could undertake to make convertible immediately an amount of sterling needed by these countries as normal working balances to finance their international trade. The remainder could be funded in sterling annuities payable over a considerable period without interest. Even a moderate rate of interest would increase enormously the burden to Britain in liquidating the wartime balances. Furthermore, nearly all of these countries financed their accumulation of sterling balances by monetary expansion. The increase in their sterling balances corresponds largely to the increase in cash balances in these countries and involves little or no interest cost to their monetary authorities.

These are the special balance of payments problems that may cause Britain to continue and extend the wartime arrangements. If they can be solved, Britain should be in a position to relax promptly most of the wartime restrictions and to participate whole-heartedly as one of the leaders in the program for international economic coöperation.

IV

The second basis for hesitation in British policy is the fear that a world economy will not in practice work. It is generally admitted in Britain that the ideal is a system of trade in which countries buy and sell in the best markets and in which the proceeds of exports to other countries can be used to pay for imports from any country. But such a system depends upon a large and stable volume of international trade. Otherwise, the world economy may break down.

There is a good deal of merit in this view. Necessary adjustments in the balance of payments can be made more easily with a large volume of trade. Under such conditions, marginal imports are likely to be less urgent, and if a reduction in imports becomes necessary, its effect on the economy is certain to be less serious. Exports are likely to be more sensitive to price, and any given reduction in export prices (in terms of the currencies of importing countries) will tend to induce a relatively large expansion of a country's exports.¹⁴ On the other hand, when the volume of world trade is small, more of a country's imports are the essentials of its economy. A reduction in imports under such conditions may involve a serious burden to a country. And with a smaller volume of trade, the composition of world exports is likely to consist in larger part

¹⁴ It should be noted that, with a world volume of exports of 50 billions, any given change in the price of a country's exports goods should, assuming the same price elasticity of demand in importing countries, have twice as large an effect on a country's exports as with world exports of 25 billions. If the magnitude of adjustments is not proportionately higher, this greater effect would of itself facilitate adjustments in a country's balance of payments.

of the specialties of the trading countries. An expansion of exports for any one country becomes for this reason more difficult.

Large and sudden fluctuations of trade have a serious effect on the world economy because they are inevitably accompanied by a serious distortion in the pattern of international payments. Such fluctuations are the consequence of major business cycles. When a great depression occurs, the volume of world trade falls sharply in response to the reduced levels of income and production. The decline in imports and exports cannot be uniform for all countries. This is so because the fall in income differs from country to country and because there are large differences as between countries in their need for import goods and the world's need for their export goods. As already stated, the restoration of balance in a country's international payments becomes more difficult as the volume of world trade falls, for each successive reduction of imports becomes more burdensome and the maintenance of exports more difficult.

In the past, two other factors have served to intensify the distortion of international payments with a great depression. First, the great industrial countries, in which depression tends to be deepest, are the principal source of funds for international investment. With the distortion in the pattern of international payments, foreign investment may stop. As a consequence, countries that have become adjusted to an inflow of capital are confronted with the necessity of sharply reversing their import-export trend. Second, in a world of limited trade, the one way some countries may find open to make necessary adjustments in their international payments is through restrictions on imports and through discriminatory arrangements to expand exports. This was the experience of the 1930's.

As a practical matter the level and stability of international trade and investment depend on the great industrial countries. The less developed countries have generally been prepared to import as much from the great industrial countries as their accruing exchange resources, from exports and foreign investments, would permit. Fluctuations in world trade commonly originate in the great industrial countries where fluctuations in home investment result in large changes in the national income and in the level of imports. In the less developed countries, where the investment industries are of little importance, depression is more likely to be a consequence of a decline in their exports. In effect, it is a response to depression in the great industrial countries transmitted to the less developed countries through changes in international trade and investment.

The prospects of maintaining a large and stable volume of international trade and investment are far brighter than in the 1930's.

In the great industrial countries public opinion is aware of the necessity of preventing great depressions and is insistent on a policy of maintaining employment. Nevertheless, no assurance can be given that a large and stable volume of international trade and investment can at all times be maintained. But provision has been made in the program for a world economy to minimize the difficulties that arise from a sudden reduction in international trade and investment and to facilitate necessary adjustments in the pattern of international payments.

A sudden reduction in trade compels countries whose exports are most sensitive to international business conditions either to reduce imports or deplete their monetary reserves. With the International Monetary Fund, such countries can obtain assistance that will help them to maintain temporarily their flow of imports. In the meantime, it would be expected that concerted action would be taken to bring about recovery and to restore international trade. Because help from the Fund is limited in amount, a country cannot on this account avoid taking corrective measures where they are necessary.

Under the International Monetary Fund, necessary adjustments in a country's balance of payments can be made without compelling serious deflation at home or imposing deflation on other countries. If the change in a country's position is due to depression abroad and balance can be restored with the expansion of trade, the Fund might agree that temporary exchange control, which limits the incurring of foreign obligations, would be justified. If a fundamental change has occurred in a country's international economic position, it must somehow lower its export prices relative to import prices. Where a country can make the adjustment through a reduction in domestic costs, the Fund would not be involved. On the other hand, where such a policy would require serious deflation and depression, the Fund would undoubtedly concur in a proposal to alter the exchange rate and to restore in this way the balance of payments of a country. At the same time, the Fund would protect other countries from the impairment of their balance of payments through unnecessary restrictions on current international transactions and through competitive exchange depreciation.

There is the special problem of preventing a compulsory all-round reduction in the volume of trade if one of the great trading countries should suffer a serious depression or should for some other reason have a large and persistently favorable balance of payments. Consider what would happen if a major currency should become scarce in a world economy in which all currencies are interconvertible and in which no provision is made for dealing with a general scarcity of a currency. Each country with a deficit would take measures to limit its imports. The effect in restoring its balance of payments is the same whether the

reduction in imports is from the country whose currency is scarce or from other countries. To the extent that imports are reduced from other countries the problem is not, in fact, solved; it is merely shifted, and other countries are then faced with the necessity of reducing their imports. Only as imports are reduced from the country whose currency is scarce is the problem really solved. An attempt to adjust imports to the scarcity of a major currency could in this way result in a large and general contraction of international trade.¹⁵

This problem is not likely to arise if serious depression can be avoided in the great industrial countries. So long as these countries import and invest abroad on a scale commensurate with a high national income, their currencies cannot remain scarce. Nevertheless, the Fund must take account of the possibility of scarcity of a currency and it must provide the means for dealing with the problem. The Fund recognizes frankly that when a currency is scarce, the complete interconvertibility of currencies cannot be maintained and it is necessary for other countries to limit the incurring of obligations in the scarce currency. Therefore, when a currency is declared scarce, the Fund will allocate its sales of the scarce currency and members will be authorized to limit exchange transactions in the scarce currency. In this way the Fund would prevent a general reduction in trade that would result from a vain attempt to imitate a non-existent system of freely and fully interconvertible currencies.¹⁶

There should be no attempt to gloss over the difficulties of making a world economy work. It is far better to recognize the difficulties and to provide a practical means for dealing with them if they should arise. The program for a world economy is concerned with coöperative measures to facilitate the maintenance of a high and stable level of international trade and investment. No doubt, there will be times when trade and investment will decline. For such contingencies, specific provision is made to minimize the hardships and to prevent a breakdown in international economic relations.

V

Public opinion in Britain would welcome any plan that would enable her to adopt a policy of prompt and complete participation in the program for a world economy. If the special problem of the transition could be solved, Britain would be prepared to assume the risk that a

¹⁵ E. M. Bernstein, "Scarce Currencies and the International Monetary Fund." *Jour. Pol. Econ.*, Vol. LIII, No. 1 (Mar., 1945), pp. 1-14.

¹⁶ Senate Committee on Banking and Currency, Report No. 452, 79th Cong., 1st sess., "Participation of the United States in the International Monetary Fund and the International Bank for Reconstruction and Development" (Washington, 1945), pp. 21-22.

world economy can be made to work.¹⁷ This, in substance, is the position that British spokesmen have always taken. Now, with the end of the war, the magnitude of Britain's transition problem is clear. The countries that stand to gain most from the restoration of a world economy—Britain herself, the United States, Canada, and the countries of the sterling area—should in their own interests agree on a program that will enable Britain to meet this problem.

A program for this purpose will involve financial aid on terms within Britain's capacity to repay and in an amount that will enable her to dispense with the restrictive and discriminatory arrangements designed to meet her transition needs. The aggregate amount of such aid from the United States and other countries would have to be about 5 billion dollars. Clearly, it would not be desirable to reduce the amount to a level that would raise doubts as to its adequacy and require the retention of harmful restrictions. The aid should be in the form of credits repayable over a long period after Britain's balance of payments has been restored, repayment to begin in the post-transition period, about five years from now. The interest rate must of necessity be less than would be expected on a banking basis. Britain will have to meet not only the transition debt, but also a large part of the wartime sterling debt. The burden should not be increased by heavy interest charges.

If the transition problem were met, Britain would be in a position to establish the full convertibility of sterling hereafter derived from current transactions. Obviously, accumulated sterling balances could not be made freely convertible, even when they are needed for current trade in other countries, until satisfactory arrangements are made to reduce by 40 per cent or more the balances accumulated by the sterling area countries as a result of Britain's war expenditure. When this has been done, some part of these sterling balances, not to exceed a billion dollars, could be held as working balances convertible under the terms of the International Monetary Fund, and the rest could be funded into long-term sterling obligations without interest. Because such a settlement of the sterling balances is essential to enable Britain to assume the obligation of immediate convertibility of sterling, it should be part of the arrangements made by Britain to deal with the transition problem.

If means were provided to enable Britain to maintain her imports during the transition, and if sterling were made convertible, it would be possible to abandon promptly the sterling area dollar pool. Under this wartime arrangement, the dollar earnings of the sterling area countries were sold to Britain for sterling and were kept as a common pool

¹⁷ "Bretton Woods, The Problem of Anglo-American Economic Relations." Six articles in *The Economist* (London), July 21, 28, August 4, 11, 18, and 25, 1945.

to meet the needs of the sterling area for dollar exchange. Dollars from this pool were sold by Britain for sterling for the most urgent war purposes. The dollar pool was a necessary war measure. It made possible mobilization of the dollar exchange of the sterling area for essential war needs. Without it, the United States would have had to provide greater Lend-Lease aid or the war effort of the sterling area would have been impaired. Nevertheless, the continuation of the dollar pool is not consistent with a world economy, for it may compel a restriction of trade with the United States by countries whose current international payments are in balance and whose receipts of dollar exchange are adequate to pay for their imports from the United States.

In the last few months Britain has entered into currency agreements with each of a number of countries.¹⁸ Under most of these agreements, the two signatories undertake to provide each other in limited amount with the currencies needed for making payments in each other's territories. There is nothing in an agreement of this character that need be in conflict with the broader purposes of the International Monetary Fund. On the contrary, such agreements for reciprocal credit can supplement the help given by the Fund and facilitate the functioning of the world economy, particularly during the period of transition. They must not degenerate into bilateral clearing agreements in which settlement of accounts is intended to be made through bilateral adjustment of imports and exports. It should be noted that these currency agreements are predicated on basic commitments on exchange policy through the International Monetary Fund. There should be no objection to the continuance of such agreements within the framework of the Fund.

The one major part of the program for a world economy that remains to be completed is an international agreement on commercial policy. Of necessity, such an agreement has had to await the determination of British policy during the transition. If Britain secures aid in meeting her transition problem, she can enter into an international agreement to reduce tariff barriers and to eliminate quantitative restrictions on trade, except where such restrictions are permitted temporarily under the supervision of an international trade organization. An international agreement on commercial policy is essential to an expansion of world trade and there can be no doubt that a firm understanding on commercial policy will be reached in connection with the aid to Britain.

One aspect of British trade policy, imperial preference, requires

¹⁸ Agreements of this reciprocal credit type have been made with Belgium, Sweden, France, Denmark and Netherlands. The credit limit in the French agreement is \$100 million, in the Belgian and Dutch agreements £5 million. The Swedish and Danish agreements do not provide for a stated maximum of credit to be provided for current payments. Financial agreements recently concluded with Finland and Turkey are intended to facilitate settlement of indebtedness as well as payment for current transactions.

special consideration. Such preferential arrangements are of long standing. Britain had them within the British Empire before the Ottawa agreements and the United States has had similar preferential arrangements with Cuba and the Philippines. There is, nevertheless, a tendency to regard trade preferences as a distinctly British policy growing out of the Ottawa Conference of 1932.

While trade preferences are a form of discrimination, they need not be restrictive of trade. If Australia and New Zealand, for example, give substantial *ad valorem* preferences to certain manufactures of Britain, trade may be diverted from lower cost American exporters to higher cost British exporters. The element of discrimination in such an arrangement is of much the same character as that which arises from the extension of a partial free trade area through reciprocal agreement. Of itself, such an arrangement should generally involve an expansion of trade. Preferential trade arrangements may be restrictive, however, if the preferences are given by increasing duties on imports from other countries. Because of their discriminatory character, it would be in the general interest to reduce and gradually to eliminate all preferential arrangements except those involving a true customs union.

VI

Until Britain's balance-of-payments problem in the post-war transition is solved, the objectives of free and orderly exchanges and non-discriminatory international trade cannot be wholly achieved. For Britain may feel compelled to retain wartime exchange controls, restrictions on the convertibility of sterling, and bilateralism and discrimination in international trade, if she cannot find another solution to her problem. A peaceful and prosperous world requires the integration of the United Kingdom and the British Commonwealth in the world economy as soon as possible.

If aid were offered to Britain by the United States and the Dominions on terms within her capacity to meet, the doubt and hesitation in Britain on her international economic policy would probably disappear. Public opinion would overwhelmingly favor British participation in the broad program for international economic coöperation. Her economic and political traditions and interests require Britain to find a solution to her problems within the framework of a world economy. With aid from the United States and the Dominions, such a solution can be found.

A favorable decision on Britain's international economic policy will mark another step forward in the restoration of a world economy. It will contribute significantly to the prompt attainment of those objectives of order and freedom in the international exchanges that the Bretton Woods program has so boldly set up as the basis on which to

build international trade and investment after the war. It will facilitate an international agreement to establish an international trade organization devoted to the maintenance of fair practices in international trade. Only through such an agreement can we hope for a prompt reduction of unnecessary barriers to world trade and the gradual elimination of the discriminatory practices that hamper world trade.

The policy that Britain chooses in meeting her balance-of-payments problem will affect the economic well-being of the entire world. The interest of the United States in the solution of this problem is second only to that of Britain herself. Our foresight in recognizing the importance of facilitating the proper solution will be a test of our economic statesmanship. The aid this country and others offer to Britain will be amply repaid, not alone through the repayment of the debt, but in even greater measure through the broader benefits of a sound and prosperous world economy.

THE THEORY OF ECONOMIC BEHAVIOR¹

By LEONID HURWICZ*

Had it merely called to our attention the existence and exact nature of certain fundamental gaps in economic theory, the *Theory of Games and Economic Behavior* by von Neumann and Morgenstern would have been a book of outstanding importance. But it does more than that. It is essentially constructive: where existing theory is considered to be inadequate, the authors put in its place a highly novel analytical apparatus designed to cope with the problem.

It would be doing the authors an injustice to say that theirs is a contribution to economics only. The scope of the book is much broader. The techniques applied by the authors in tackling economic problems are of sufficient generality to be valid in political science, sociology, or even military strategy. The applicability to games proper (chess and poker) is obvious from the title. Moreover, the book is of considerable interest from a purely mathematical point of view. This review, however, is in the main confined to the purely economic aspects of the *Theory of Games and Economic Behavior*.

To a considerable extent this review is of an expository² nature. This seems justified by the importance of the book, its use of new and unfamiliar concepts and its very length which some may find a serious obstacle.

The existence of the gap which the book attempts to fill has been known to the economic theorists at least since Cournot's work on duopoly, although even now many do not seem to realize its seriousness. There is no adequate solution of the problem of defining "rational economic behavior" on the part of an individual when the very rationality of his actions depends on the probable behavior of other individuals: in the case of oligopoly, other sellers. Cournot and many after him have attempted to sidetrack the difficulty by assuming that every individual has a definite idea as to what others will do under given conditions. Depending on the nature of this expected behavior of other individuals, we have the special, well-known solutions of Bertrand and Cournot, as well as the more general Bowley concept of the

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The author, on leave from Iowa State College where he is associate professor, is now on a Guggenheim Memorial Fellowship, working with the Cowles Commission for Research in Economics, of which he is a research associate.

The tables and figures used in this article were drawn by Mrs. D. Friedlander of the University of Chicago.

¹ *Theory of Games and Economic Behavior*. By John von Neumann and Oskar Morgenstern. (Princeton: Princeton Univ. Press. 1944. Pp. xviii, 625. \$10.)

² The exposition is mostly carried out by means of comparatively simple numerical examples. This involves loss of generality and rigor, but it may be hoped that it will make the presentation more accessible.

h conjectural variation.”³ Thus, the individual’s “rational behavior” is determinate *if* the pattern of behavior of “others” can be assumed *a priori* known. But the behavior of “others” cannot be known *a priori* if the “others,” too, are to behave rationally! Thus a logical *impasse* is reached.

The way, or at least a way,⁴ out of this difficulty had been pointed out by one of the authors⁵ over a decade ago. It lies in the rejection of a narrowly interpreted maximization principle as synonymous with rational behavior. Not that maximization (of utility⁶ or profits) would not be desirable if it were feasible, but there can be no true maximization when only one of the several factors which decide the outcome (of, say, oligopolistic competition) is controlled by the given individual.

Consider, for instance, a duopolistic situation⁷ where each one of the duopolists A and B is *trying* to maximize his profits. A’s profits will depend not only on his behavior (“strategy”) but on B’s strategy as well. Thus, *if* A could control (directly or indirectly) the strategy to be adopted by B, he would select a strategy for himself and one for B so as to maximize his own profits. But he cannot select B’s strategy. Therefore, he can in no way make sure that by a proper choice of his own strategy his profits will actually be unconditionally maximized.

It might seem that in such a situation there is no possibility of defining rational behavior on the part of the two duopolists. But it is here that the novel solution proposed by the authors comes in. An example will illustrate this.

Suppose each of the duopolists has three possible strategies at his disposal.⁸ Denote the strategies open to duopolist A by A_1 , A_2 , and A_3 , and those open to duopolist B by B_1 , B_2 , and B_3 . The profit made by A, to be denoted by a , obviously is determined by the choices of strategy made by the two duopolists. This dependence will be indicated by subscripts attached to a , with the first subscript referring to A’s strategy and the second subscript to that of B; thus, e.g., a_{12} is the profit which will be made by A if he chooses strategy A_1 while B chooses the strategy B_2 . Similarly, b_{12} would denote the profits

³ More recent investigations have led to the idea of a kinked demand curve. This, however, is a special—though very interesting—case of the conjectural variation.

⁴ Cf. reference to von Stackelberg in footnote 17 and some of the work quoted by von Stackelberg, *op. cit.*

⁵ J. von Neumann, “Zur Theorie der Gesellschaftsspiele,” *Math. Annalen* (1928).

⁶ A side-issue of considerable interest discussed in the *Theory of Games* is that of measurability of the utility function. The authors need measurability in order to be able to set up tables of the type to be presented later in the case where utility rather than profit is being maximized. The proof of measurability is not given; however, an article giving the proof is promised for the near future and it seems advisable to postpone comment until the proof appears. But it should be emphasized that the validity of the core of the *Theory of Games* is by no means dependent on measurability or transferability of the utilities and those who feel strongly on the subject would perhaps do best to substitute “profits” for “utility” in most of the book in order to avoid judging the achievements of the *Theory of Games* from the point of view of an unessential assumption.

⁷ It is assumed that the buyers’ behavior may be regarded as known.

⁸ Actually the number of strategies could be very high, perhaps infinite.

A's Profits

B's choice of strategies A's choice of strategies	B ₁	B ₂	B ₃
	A ₁	A ₂	A ₃
A ₁	a ₁₁	a ₁₂	a ₁₃
A ₂	a ₂₁	a ₂₂	a ₂₃
A ₃	a ₃₁	a ₃₂	a ₃₃

Table 1a

B's Profits

B's choice of strategies A's choice of strategies	B ₁	B ₂	B ₃
	A ₁	A ₂	A ₃
A ₁	b ₁₁	b ₁₂	b ₁₃
A ₂	b ₂₁	b ₂₂	b ₂₃
A ₃	b ₃₁	b ₃₂	b ₃₃

Table 1b

by B under the same circumstances. The possible outcomes of the "duopolistic competition" may be represented in the following two tables:

Table 1a shows the profits A will make depending on his own and B's choice of strategies. The first row corresponds to the choice of A₁, etc.; columns correspond to B's strategies. Table 1b gives analogous information regarding B's profits.

In order to show how A and B will make decisions concerning strategies we shall avail ourselves of a numerical example given in Tables 2a and 2b.

A's Profits

B's choice of strategies A's choice of strategies	B ₁	B ₂	B ₃
	A ₁	A ₂	A ₃
A ₁	2	8	1
A ₂	4	3	9
A ₃	5	6	7

Table 2a

B's Profits

B's choice of strategies A's choice of strategies	B ₁	B ₂	B ₃
	A ₁	A ₂	A ₃
A ₁	11	2	20
A ₂	9	15	3
A ₃	8	7	6

Table 2b

Now let us watch A's thinking processes as he considers his choice of strategy. First of all, he will notice that by choosing strategy A₃ he will be sure that his profits cannot go down below 5, while either of the remaining alternatives would expose him to the danger of going down to 3 or even to 1.

But there is another reason for his choosing A_3 . Suppose there is a danger of a "leak": B might learn what A's decision is before he makes his own. Had A chosen, say, A_1 , B—if he knew about this—would obviously choose B_3 so as to maximize his own profits; this would leave A with a profit of only 1. Had A chosen A_2 , B would respond by selecting B_2 , which again would leave A with a profit below 5 which he could be sure of getting if he chose A_3 .

One might perhaps argue whether A's choice of A_3 under such circumstances is the only way of defining rational behavior, but it certainly is a way of accomplishing this and, as will be seen later, a very fruitful one. The reader will verify without difficulty that similar reasoning on B's part will make him choose B_1 as the optimal strategy. Thus, the outcome of the duopolistic com-

A's Profits

B's choice of strategies A's choice of strategies			
	B_1	B_2	B_3
A_1	2	8	1
A_2	4	3	9
A_3	5	6	7

Table 3a

B's Profits

B's choice of strategies A's choice of strategies			
	B_1	B_2	B_3
A_1	8	2	9
A_2	6	7	1
A_3	5	4	3

Table 3b

petition is determinate and can be described as follows: A will choose A_3 , B will choose B_1 , A's profit will be 5, B's 8.

An interesting property of this solution is that neither duopolist would be inclined to alter his decision, even if he were able to do so, after he found out what the other man's strategy was.

To see this, suppose B has found out that A's decision was in favor of strategy A_3 . Looking at the third row of Table 2b, he will immediately see that in no case could he do better than by choosing B_1 , which gives him the highest profit consistent with A's choice of A_3 . The solution arrived at is of a very stable nature, independent of finding out the other man's strategy.

But the above example is artificial in several important respects. For one thing, it ignores the possibility of a "collusion" or, to use a more neutral term, coalition between A and B. In our solution, yielding the strategy combination (A_3, B_1) , the joint profits of the two duopolists amount to 13; they could do better than that by acting together. By agreeing to choose the strategies A_1 and B_3 respectively, they would bring their joint profits up to 21; this sum could then be so divided that both would be better off than under the previous solution.

A major achievement of the *Theory of Games* is the analysis of the conditions and nature of coalition formation. How that is done will be shown below. But, for the moment, let us eliminate the problem of coalitions by considering a case which is somewhat special but nevertheless of great theoretical interest: the case of *constant sum* profits. An example of such a case is given in Tables 3a and 3b.

Table 3a is identical with Table 2a. But figures in Table 3b have been selected in such a manner that the joint profits of the two duopolists always amount to the same (10), no matter what strategies have been chosen. In such a case, A's gain is B's loss and *vice versa*. Hence, it is intuitively obvious (although the authors take great pains to show it rigorously) that no coalition will be formed.

The solution can again be obtained by reasoning used in the previous case and it will again turn out to be (A_3, B_1) with the respective profits 5 and 5 adding up to 10. What was said above about stability of solution and absence of advantage in finding the opponent⁹ out still applies.

There is, however, an element of artificiality in the example chosen that is responsible for the determinateness of the solution. To see this it will suffice to interchange 5 and 6 in Table 3a. The changed situation is portrayed in Table 4 which gives A's profits for different choices of strategies.¹⁰

There is no solution now which would possess the kind of stability found in the earlier example. For suppose A again chooses A_3 ; then if B should find that out, he would obviously "play" B_2 which gives him the highest possible profit consistent with A_3 . But then A_3 would no longer be A's optimum strategy: he could do much better by choosing A_1 ; but if he does so, B's optimum strategy is B_3 , not B_2 , etc. There is no solution which would not give at least one of the opponents an incentive to change his decision if he found the other man out! There is no stability.¹¹

What is it in the construction of the table that insured determinateness in

		A's Profits		
B's choice of strategies A's choice of strategies		B_1	B_2	B_3
	A_1	2	8	1
	A_2	4	3	9
	A_3	6	5	7

Table 4

⁹ In this case the interests of the two duopolists are diametrically opposed and the term "opponents" is fully justified; in the previous example it would not have been.

¹⁰ The table for B's profits is omitted because of the constant sum assumption. Clearly, in the constant sum case, B may be regarded as minimizing A's profits since this implies maximization of his own.

¹¹ There is, however, a certain amount of determinateness, at least in the negative sense, since certain strategy combinations are excluded: e.g. (A_2, B_1) ; A would never choose A_2 if he knew B had chosen B_1 , and *vice versa*.

the case of Table 3 and made it impossible in Table 4? The answer is that Table 3 has a *saddle point* ("minimax") while Table 4 does not.

The saddle point has the following two properties: it is the highest of all the row minima and at the same time it is lowest of the column maxima. Thus, in Table 3a the row minima are respectively 1, 3, and 5, the last one being highest among them (*Maximum Minorum*); on the other hand, the column maxima are respectively 5, 8, and 9 with 5 as the lowest (*Minimum Maximorum*). Hence the combination (A_3 , B_1) yields both the highest row minimum and the lowest column maximum, and, therefore, constitutes a saddle point. It is easy to see that Table 4 does *not* possess a saddle point. Here 5 is still the *Maximum Minorum*, but the *Minimum Maximorum* is given by 6; the two do not coincide, and it is the absence of the saddle point that makes for indeterminateness in Table 4.

Why is the existence of a unique saddle point necessary (as well as sufficient) to insure the determinateness of the solution? The answer is inherent in the reasoning used in connection with the earlier examples: if A chooses his strategy so as to be protected in case of any leakage of information concerning his decision, he will choose the strategy whose row in the table has the highest minimum value, *i.e.*, the row corresponding to the *Maximum Minorum*— A_3 in case of Table 4—for then he is sure he will not get less than 5, even if B should learn of this decision. B, following the same principle, will choose the column (*i.e.*, strategy) corresponding to the *Minimum Maximorum*— B_1 in Table 4—thus making sure he will get at least 4, even if the information does leak out.

In this fashion both duopolists are sure of a certain minimum of profit—5 and 4, respectively. But this adds up to only 9. The residual—1—is still to be allocated and this allocation depends on outguessing the opponent. It is this residual that provides an explanation, as well as a measure, of the extent of indeterminacy. Its presence will not surprise economists familiar with this type of phenomenon from the theory of bilateral monopoly. But there are cases when this residual does equal zero, that is, when the *Minimum Maximorum* equals the *Maximum Minorum*, which (by definition) implies the existence of the saddle point and complete determinacy.

At this stage the authors of the *Theory of Games* had to make a choice. They could have accepted the fact that saddle points do not always exist so that a certain amount of indeterminacy would, in general, be present. They preferred, however, to get rid of the indeterminacy by a highly ingenious modification of the process which leads to the choice of appropriate strategy.

So far our picture of the duopolist making a decision on strategy was that of a man reasoning out which of the several possible courses of action is most favorable ("*pure strategy*"). We now change this picture and put in his hands a set of dice which he will throw to determine the strategy to be chosen. Thus, an element of chance is introduced into decision making ("*mixed strategy*").¹² But not everything is left to chance. The duopolist A

¹² The authors' justification for introducing "mixed strategies" is that leaving one's decision to chance is an effective way of preventing "leakage" of information since the individual making the decision does not himself know which strategy he will choose.

A's Profits

B's choice of strategies A's choice of strategies	B_1	B_2		
			ROW MINIMA	
A_1	5	3	3	} MAXIMUM MINIMORUM
A_2	1	5	1	

COLUMN MAXIMA	5	5
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MINIMUM MAXIMORUM

Table 5

must in advance formulate a rule as to what results of the throw—assume that just one die is thrown—would make him choose a given strategy. In order to illustrate this we shall use a table that is somewhat simpler, even if less interesting than those used previously. In this new table (Table 5)¹⁸ each duopolist has only two strategies at his disposal.

An example of a rule A might adopt would be:

If the result of the throw is 1 or 2, choose A_1 ;
if the result of the throw is 3, 4, 5, or 6, choose A_2 .

If this rule were followed, the probability that A will choose A_1 is $1/3$, that of his choosing A_2 is $2/3$. If a different rule had been decided upon (say, one of choosing A_1 whenever the result of the throw is 1, 2, or 3), the probability of choosing A_1 would have been $1/2$. Let us call the fraction giving the

¹⁸ In Table 5 there is no saddle point.

probability of choosing A_1 , A's *chance coefficient*; in the two examples, A's chance coefficients were $1/3$ and $1/2$ respectively.¹⁴

As a special case the value of the chance coefficient might be zero (meaning, that is, definitely choosing strategy A_2) or one (meaning that A is definitely choosing strategy A_1); thus in a sense "pure strategies" may be regarded as

Mathematical Expectations : of A's Profits

B's chance coefficients A's chance coefficients					ROW MINIMA
	0	$\frac{1}{3}$	$\frac{2}{3}$	1	
0	5	$3\frac{2}{3}$	$2\frac{1}{3}$	1	1
$\frac{1}{3}$	$4\frac{1}{3}$	$3\frac{2}{3}$	3	$2\frac{1}{3}$	$2\frac{1}{3}$
$\frac{2}{3}$	$3\frac{2}{3}$	$3\frac{2}{3}$	$3\frac{2}{3}$	$3\frac{2}{3}$	$3\frac{2}{3}$
1	3	$3\frac{2}{3}$	$4\frac{1}{3}$	5	3
COLUMN MAXIMA	5	$3\frac{2}{3}$	$4\frac{1}{3}$	5	
MINIMUM MAXIMORUM					

Table 6

a special case of mixed strategies. However, this last statement is subject to rather important qualifications which are of a complex nature and will not be given here.

Now instead of choosing one of the available strategies the duopolist A must choose the optimal (in a sense not yet defined) chance coefficient. How

¹⁴ Since the probability of choosing A_2 is always equal to one minus that of choosing A_1 , specification of the probability of choosing A_1 is sufficient to describe a given rule. However, when the number of available strategies exceeds two, there are several such chance coefficients to be specified.

is the choice of the chance coefficient made? The answer lies in constructing a table which differs in two important respects from those used earlier. Table 6 provides an example. Each row in the table now corresponds to a possible value of A's chance coefficient; similarly, columns correspond to possible values of B's chance coefficient. Since the chance coefficient may assume any value between zero and one (including the latter two values), the table is to be regarded merely as a "sample." This is indicated by spaces between rows and between columns.

The numbers entered in the table are the average values (mathematical expectations) corresponding to the choice of chance coefficients indicated by the row and column.¹⁵ (One should mention that Table 6 is only an expository device: the actual procedures used in the book are algebraic and much simpler computationally.)

If we now assume with the authors that each duopolist is trying to maximize the mathematical expectation of his profits (Table 6) rather than the profits themselves (Table 5), it might seem that the original source of difficulty remains if a saddle point does not happen to exist. But the mixed strategies were not introduced in vain! It is shown (the theorem was originally proved by von Neumann in 1928) that in the table of mathematical expectations (like Table 6) a saddle point *must* exist; the problem is always determinate.¹⁶

The reader who may have viewed the introduction of dice into the decision-making process with a certain amount of suspicion will probably agree that

¹⁵ To see this we shall show how, *e.g.*, we have obtained the value in the second row and third column of Table 5 (*viz.*, 3).

We construct an auxiliary table (valid only for this particular combination of chance coefficients (A's $\frac{1}{3}$, B's $\frac{2}{3}$).

This table differs from Table 5 only by the omission of row maxima and column minima and by the insertion of the probabilities of choosing the available strategies corresponding to the second row third column of Table 6. The computation of the mathematical expectation is indicated in Table 6.

COMPUTATION OF THE MATHEMATICAL EXPECTATION FOR THE 2ND ROW, 3RD COLUMN IN TABLE 6

A's choice of strategies \ B's choice of strategies		B's chance coefficients	
		B ₁	B ₂
A's chance coefficients	A ₁	$\frac{2}{3}$	$\frac{1}{3}$
	A ₂	$\frac{1}{3}$	$\frac{2}{3}$
		5	3
		1	5

$$\begin{aligned} & \frac{1}{3} \times \frac{2}{3} \times 5 + \frac{1}{3} \times \frac{1}{3} \times 3 \\ & + \frac{2}{3} \times \frac{2}{3} \times 1 + \frac{2}{3} \times \frac{1}{3} \times 5 \\ & = 27/9 = 3 \end{aligned}$$

¹⁶ In Table 6 the saddle point is in the third row second column; it is to be stressed that Table 5 has no saddle point.

this is a rather spectacular result. Contrary to the initial impression, it is possible to render the problem determinate. But there is a price to be paid: acceptance of mixed strategies, assumption that only the mathematical expectation of profit (not its variance, for instance) matters, seem to be necessary. Many an economist will consider the price too high. Moreover, one might question the need for introducing determinateness into a problem of this nature. Perhaps we should consider as the "solution" the interval of indeterminacy given by the two critical points: the *Minimum Maximorum* and *Maximum Minimorum*.

As indicated earlier in this review, one should not ignore, in general, the possibility of a collusion. This is especially evident when more complex economic situations are considered.

We might, for instance, have a situation where there are two sellers facing two buyers. Here a "coalition" of buyers, as well as one of sellers, may be formed. But it is also conceivable that a buyer would bribe a seller into some sort of coöperation against the other two participants. Several other combinations of this type can easily be found.

When only *two* persons enter the picture, as in the case of duopoly (where the rôle of buyers was ignored), it was seen that a coalition would not be formed if the sum of the two persons' profits remained constant. But when the number of participants is *three* or more, subcoalitions can profitably be formed even if the sum of all participants' profits is constant; in the above four-person example it might pay the sellers to combine against the buyers even if (or, perhaps, especially if) the profits of all four always add to the same amount.

Hence, the formation of coalitions may be adequately treated without abandoning the highly convenient constant-sum assumption. In fact, when the sum is known to be non-constant, it is possible to introduce (conceptually) an additional fictitious participant who, by definition, loses what all the real participants gain and *vice versa*. In this fashion a non-constant sum situation involving, say, three persons may be considered as a special case of a constant-sum four-person situation. This is an additional justification for confining most of the discussion (both in the book and in the review) to the constant-sum case despite the fact that economic problems are as a rule of the non-constant sum variety.

We shall now proceed to study the simplest constant-sum case which admits coalition formation, that involving three participants. The technique of analysis presented earlier in the two-person case is no longer adequate. The number of possibilities increases rapidly. Each of the participants may be acting independently; or else, one of the three possible two-person coalitions (A and B *vs.* C, A and C *vs.* B, B and C *vs.* A) may be formed. Were it not for the constant-sum restriction, there would be the additional possibility of the coalition comprising all three participants.

Here again we realize the novel character of the authors' approach to the problem. In most¹⁷ of traditional economic theory the formation—or absence—

¹⁷ In his *Grundlagen einer reinen Kostentheorie* (Vienna, 1932) H. von Stackelberg does point out (p. 89) that "the competitors [duopolists] must somehow unite; they must . . .

of specific coalitions is *postulated*. Thus, for instance, we discuss the economics of a cartel without rigorously investigating the necessary and sufficient conditions for its formation. Moreover, we tend to exclude *a priori* such phenomena as collusion between buyers and sellers even if these phenomena are known to occur in practice. The *Theory of Games*, though seemingly more abstract than economic theory known to us, approaches reality much more closely on points of this nature. A complete solution to the problems of economic theory requires an answer to the question of coalition formation, bribery, collusion, etc. This answer is now provided, even though it is of a somewhat formal nature in the more complex cases; and even though it does not always give sufficient insight into the actual workings of the market.

Let us now return to the case of three participants. Suppose two of them are sellers, one a buyer. Traditional theory would tell us the quantity sold by each seller and the price. But we know that in the process of bargaining one of the sellers might bribe the other one into staying out of the competition. Hence the seller who refrained from market operations would make a profit; on the other hand, the nominal profit made by the man who did make the sale would exceed (by the amount of bribe) the actual gain made.

It is convenient, therefore, to introduce the concept of *gain*: the bribed man's gain is the amount of the bribe, the seller's gain is the profit made on a sale minus the bribe, etc. A given distribution of gains among the participants is called an *imputation*. The imputation is not a number: it is a set of numbers. For instance, if the gains of the participants in a given situation were g_A , g_B , g_C , it is the set of these three g 's that is called the imputation. The imputation summarizes the outcome of the economic process. In any given situation there are a great many possible imputations. Therefore, one of the chief objectives of economic theory is that of finding those among all the possible imputations which will actually be observed under rational behavior.

In a situation such as that described (three participants, constant-sum) each man will start by asking himself how much he could get acting independently, even if the worst should happen and the other two formed a coalition against him. He can determine this by treating the situation as a two-person case (the opposing coalition regarded as one person) and finding the relevant *Maximum Minimax*, or the saddle point, if that point does exist; the saddle point would, of course, exist if "mixed strategies" are used. Next, the participant will consider the possibility of forming a coalition with one of the other two men. Now comes the crucial question: under what conditions might such a coalition be formed?

Before discussing this in detail, let us summarize, in Table 8, all the relevant information.

supplement the economic mechanics, which in this case is inadequate, by economic politics." But no rigorous theory is developed for such situations (although an outline of possible developments is given). This is where the *Theory of Games* has made real progress.

TABLE 8

I. If A acts alone, he can get	5
If B acts alone, he can get	7
If C acts alone, he can get	10.
II. If A and B form a coalition, they can get	15
If A and C form a coalition, they can get	18
If B and C form a coalition, they can get	20.
III. If A, B, and C act together, they can get	25.

Among the many possible imputations, let us now consider the three given in Table 9.

TABLE 9

	A	B	C
#1	6.5	8.3	10.2
#2	5.0	9.5	10.5
#3	4.0	10.0	11.0

It will be noted that under imputation #1, B and C are each better off than if they had been acting individually: they get respectively 8.3 and 10.2 instead of 7 and 10. Hence, there is an incentive for B and C to form a coalition since without such a coalition imputation #1 would not be possible. But once the coalition is formed, they can do better than under #1; *viz.*, under #2, where each gets more (9.5 and 10.5 instead of 8.3 and 10.2, respectively). In such a case we say that imputation #2 *dominates* imputation #1. It might seem that #3, in turn, dominates #2 since it promises still more to both B and C. But it promises too much: the sum of B's and C's gains under #3 is 21, which is more than their coalition could get (*cf.* Table 8)! Thus #3 is ruled out as unrealistic and cannot be said to dominate any other imputation.

Domination is an exceptionally interesting type of relation. For one thing, it is not transitive: we may have an imputation i_1 dominating the imputation i_2 , and i_2 dominating i_3 , without thereby implying that i_1 dominates i_3 ; in fact, i_1 might be dominated by i_3 .¹⁸ Moreover, it is easy to construct examples of, say, two imputations, neither of which dominates the other one.¹⁹

To get a geometric picture of this somewhat unusual situation one may turn

¹⁸ *I.e.*, domination may be a *cyclic* relation. For instance, consider the following three imputations in the above problem: #1 and #2 as in Table 9, and #4, where

	A	B	C
#4	6.0	7.0	12.0.

Here #2 (as shown before) dominates #1 (for the coalition B, C), #4 dominates #2 (for coalition A, C), but at the same time #1 dominates #4 (for the coalition A, B): the cycle is completed.

¹⁹ For instance, #2 and #3 in Table 9.

to Figure 1, where points on the circle represent different possible imputations. (The reader must be cautioned that this is merely a geometrical analogy, though a helpful one.) Let us now say that point #1 dominates point #2 if #2 is less than 90° (clockwise) from #1. It is easy to see in Figure 1 that #1 dominates #2 and #2 dominates #3, but in spite of that, #1 does not dominate #3.

This geometrical picture will help define the very fundamental concept of a *solution*.

Consider the points (imputations) #1, 3, 5, and 7 in Figure 1. None of them dominates any other since any two are either *exactly* or more than 90° apart. But any other point on the circle is dominated by at least (in this case: exactly) one of them: all points between #1 and #3 are dominated by #1, etc. There is no point on the circle which is not dominated by one of the above four points. Now we *define* a solution as a set of points (imputations) with two properties: (1) no element of the set dominates any other element of the set, and (2) any point outside the set must be dominated by at least one element within the set.

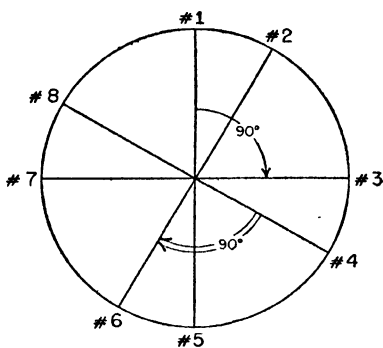


FIGURE 1

We have seen that the points #1, 3, 5, 7 do have both of these properties; hence, the four points together form a solution. It is important to see that none of the individual points by itself can be regarded as a solution. In fact, if we tried to leave out any one of the four points of the set, the remaining three would no longer form a solution; for instance, if #1 were left out, the points between #1 and #3 are not dominated by any of the points #3, 5, 7. This violates the second property required of a solution and the three points by themselves are not a solution. On the other hand, if a fifth point were added to #1, 3, 5, 7, the resulting five element set would not form a solution either; suppose #2 is the fifth point chosen; we note that #2 is dominated by #1 and it also dominates #3. Thus, the first property of a solution is absent.

Contrary to what would be one's intuitive guess, an element of the solution may be dominated by points outside the solution: #1 is dominated by #8, etc.

There can easily be more than one solution. The reader should have no trouble verifying the fact that #2, 4, 6, 8 also form a solution, and it is clear that infinitely many other solutions exist.

Does there always exist at least one solution? So far this question remains unanswered. Among the cases examined by the authors none has been found without at least one solution. But it has not yet been proved that there must always be a solution. To see the theoretical possibility of a case without a

solution we shall redefine slightly our concept of domination (*cf.* Figure 2): #1 dominates #2 if the angle between them (measured clockwise) does not exceed 180° .

Hence, in Figure 2 point #1 dominates #3, but not #4, etc. It can now be shown that in this case *no* solution exists. For suppose there is one; then we may, without loss of generality, choose #1 as one of its points. Clearly, #1 by itself does not constitute a solution, for there are points on the circle (*e.g.*, #4) not dominated by #1; thus the solution must have at least two points. But any other point on the circle either is dominated by #1 (*e.g.*, #2), or it dominates #1 (*e.g.*, #4), or both (#3), which contradicts the first requirement for the elements of a solution. Hence there is no solution consisting of two points either. *A fortiori*, there are no solutions containing more than two points. Hence we have been able to construct an example without a

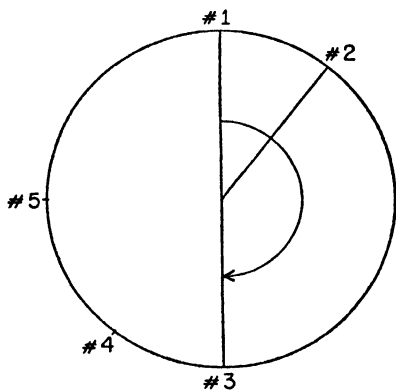


FIGURE 2

solution. But whether this type of situation could arise in economics (or in games, for that matter) is still an open question.

Now for the economic interpretation of the concept of solution. Within the solution there is no reason for switching from one imputation to another since they do not dominate each other. Moreover, there is never a good reason for going outside a given solution: any imputation outside the solution can be "discredited" by an imputation within the solution which dominates the one outside. But, as we have seen, the reverse is also usually true: imputations within the solution may be dominated by those outside. If we are to assume that the latter consideration is ignored, the given solution acquires an institutional, if not accidental, character. According to the authors, a solution may be equivalent to what one would call the "standards of behavior" which are accepted by a given community.

The multiplicity of solutions can then be considered as corresponding to alternative institutional setups; for a given institutional framework only one solution would be relevant. But even then a large number of possibilities remains since, in general, a solution contains more than one imputation. More indeterminacy yet would be present if we had refrained from introducing mixed strategies.

It would be surprising, therefore, if in their applications von Neumann and Morganstern should get no more than the classical results without discovering imputations hitherto neglected or ignored. And there are some rather interesting "unorthodox" results pointed out, especially in the last chapter of the book.

In one case, at least, the authors' claim to generality exceeding that of

economic theory is not altogether justified in view of the more recent literature. That is the case of what essentially corresponds to bilateral monopoly (p. 564, proposition 61:C). The authors obtain (by using their newly developed methods) a certain interval of indeterminacy for the price; this interval is wider than that indicated by Böhm-Bawerk, because (as the authors themselves point out) of the dropping of Böhm-Bawerk's assumption of a unique price. But this assumption has been abandoned, to give only one example, in the theories of consumer's surplus, with analogous extension of the price interval.

It will stand repeating, however, that the *Theory of Games* does offer a greater generality of approach than could be attained otherwise. The existence of "discriminatory" solutions, discovered by purely analytical methods, is an instance of this. Also, the possibility of accounting for various types of deals and collusions mentioned earlier in connection with the three-person and four-person cases go far beyond results usually obtained by customarily used methods and techniques of economic theory.

The potentialities of von Neumann's and Morgenstern's new approach seem tremendous and may, one hopes, lead to revamping, and enriching in realism, a good deal of economic theory. But to a large extent they are only potentialities: results are still largely a matter of future developments.

The difficulties encountered in handling, even by the more powerful mathematical methods, the situations involving more than three persons are quite formidable. Even the problems of monopoly and monopsony are beyond reach at the present stage of investigation. The same is true of perfect competition, though it may turn out that the latter is not a "legitimate" solution since it excludes the formation of coalitions which may dominate the competitive imputations. A good deal of light has been thrown on the problem of oligopoly, but there again the results are far from the degree of concreteness desired by the economic theorist.

The reviewer therefore regards as somewhat regrettable some of the statements made in the initial chapter of the book attacking (rather indiscriminately) the analytical techniques at present used by the economic theorists. True enough, the deficiencies of economic theory pointed out in the *Theory of Games* are very real; nothing would be more welcome than a model giving the general properties of a system with, say, m sellers and n buyers, so that monopoly, duopoly, or perfect competition could simply be treated as special cases of the general analysis. Unfortunately, however, such a model is not yet in sight. In its absence less satisfactory, but still highly useful, models have been and no doubt will continue to be used by economic theorists. One

social need for the results of economic theory

The fact that the theory of economic fluctuation
it has is not a proof of "how much the

(p. 5). Rather it shows

of developing in the theoretically
the results is as strong as it happens
of the employment level!

is conceivable, that, when a rigorous

COMMUNICATIONS

Hansen's "Three Methods of Expansion Through Fiscal Policy": Comment

In the June, 1945, number of this *Review* (pp. 382-87), Professor Hansen gives an interesting diagrammatic exposition of the three basic ways in which fiscal policy can expand total income. The immediate occasion of this comment is to raise queries as to the precise meaning of the diagrams, and to suggest corrections for what seem to be certain non-essential errors, particularly in Figure 3 (p. 385).

Hansen's purpose is to show the increase in income resulting from the three fiscal policies, starting in each case from the same budget-balancing equilibrium. In Figures 1 and 2, it seems clear that the diagrams show a continuous series of larger and larger incomes at which the economy would be in equilibrium, given larger and larger doses of the fiscal stimulant (deficit-spending in one case and tax-financed spending in the other). There is some hint in the text that Hansen may have in mind not a continuous series, but only the initial and terminal points, in which case the lines connecting these points would lose significance, and in particular there would be no reason for the curvature of some of these lines in Figure 2. Incidentally, should not the broken lines in Figure 2 start from points *H* and *F*? Otherwise, the diagram shows income at equilibrium at the initial level *E*, both with and without a small dose of the fiscal stimulant.

But the real question arises with respect to Figure 3 (tax-reduction with no change in public expenditures), which does not appear consistent with either of the above interpretations. The simplest adjustment would be to redraw the broken lines so that they would start from points *H* and *F*. Then they would show tax receipts starting at the original level and tapering off to the final reduced amount *PR*; and then tax-financed spending plus deficit-spending would be shown as a constant amount, in accord with Hansen's assumption. (This the present diagram does not do.)

This constant outlay would be represented by the constant distance between the line *FV* and the suggested line *HP*.

Having started to comment, one is tempted to go on and, in particular, to express a caution as to the inference often drawn: that *any desired* income can be induced by any one of these methods. This amounts to saying that, in existing or predictable situations, we do not need or desire to increase the national income by more than these mechanisms are capable of. In the case of increased public spending without increased tax-rates, both the source of the stimulating effect and the possible offsetting reactions have been amply dis-

is the one active component in this case) has a multiplier effect, and he is relying on that effect for his quantitative results. This seems, in principle, justifiable. This is aside from the question whether the size of the multipliers implicit in the several diagrams is overly liberal.

J. M. CLARK*

*The author is professor of economics at Columbia University.

Comment

The curves could be drawn either in the manner of my article in the June number or in the manner of Professor Clark's suggestion. Either method is correct, according to the fundamental assumptions made.

Clark assumes (Figure 2) a continuous adjustment both of expenditures and of tax rates. Thus his curves rightly would start from points *H* and *F*. I, on the other hand, assumed an increase in expenditures adequate to bring about full employment together with a single change in tax rates adequate to balance the budget at that full employment level. Thus Clark is right in assuming that I have in mind mainly the terminal full employment point. The lines in my chart, connecting the initial and the terminal points, are nevertheless significant. The dotted lines connecting the points indicate how various income levels are disposed of as between consumption and saving on the basis of the new tax rate structure. The income would vary as changes occurred in the volume of public outlays and private capital outlays combined. Clark, on the other hand, is continuously adjusting at each point on the income scale both the expenditures and the tax rates. In other words, my lines disclose the new consumption and savings function on the basis of the new tax structure. This new tax structure would mean a somewhat lower volume of consumption, also a somewhat lower volume of savings, for example, at income *OL*. Thus, my dotted curves do not coincide with the solid lines at points *H* and *F*.

With respect to Figure 3, under Clark's assumption, the new dotted curves start at *H* and *F*; but on this basis, how would one get any expansion, since the assumption is that the expansion comes about from the reduction in tax rates? If this initial difficulty could be overcome, Clark's chart, in view of his assumptions, is quite valid. His assumption is that there is a continuous process of tax reduction going on at each income level. I assume, on the other hand, that a sharp reduction in rates is made once and for all. On the basis of this new tax structure,¹ my dotted lines now reveal what the consumption and savings would be at every income level. The income would be determined (the new consumption and savings functions being given as in the dotted lines) by the combined volume of public outlays and private capital outlays, the latter being subject to wide fluctuations.

ALVIN H. HANSEN*

¹ With a constant tax rate structure, tax revenues would vary, as indicated in my charts, with changes in the level of income.

*The author is professor of economics at Harvard University.

Professor Hayek on German Socialism

I

In Chapter XII of his recent book, *The Road to Serfdom*,¹ Professor Hayek undertakes to show that the political philosophy of German national socialism has its roots in the teachings and doctrines of German socialists. Professor Hayek claims that "the support which brought these [national socialist] ideas to power, came precisely from the socialist camp," that, at least in Germany, "the connection between nationalism and socialism was close from the beginning," and that "it was largely with the assistance of old socialists that the beginning which produced national socialism rose during this period."² This paper will examine the correctness of these statements in view of the political and economic ideology of German socialism.

Professor Hayek bases his argument on two types of evidence. First, he reminds us that pre-1914 German socialism counted among its forbears the same men—Fichte, Rodbertus, and Lassalle—who are at present recognized as the intellectual fathers of national socialism. Second, he quotes several authors whose ideas he claims were formed by their study of Marxian writings and who expressed strongly nationalistic views. These two facts he considers sufficient evidence to convict the German socialist movement of adherence to extreme nationalism, to a glorification of state power at the expense of the individual, and to an ideology diametrically opposed to that of traditional liberalism.

A proper analysis of the economic and political ideology of any group consists in tracing the historical influences operative on the representative exponents of the group and in fully discussing their views. With the exception of Bebel, none of the men referred to by Professor Hayek can be regarded as having held leading positions among socialist writers or politicians. The appeal to Fichte, Lassalle, and Rodbertus is also deceptive. The fact that these men are regarded as intellectual forbears of socialism and of national socialism does not mean much by itself unless a thorough analysis is made of why they have attained this position and which parts of their theories have been taken over. How misleading the simple appeal to spiritual fatherhood can be is shown by reference to contemporary America, where we find such diverse groups as the Republicans and the Communists appealing to Lincoln as their political ancestor; where we find monopolists calling on Jefferson to protect their "freedom of enterprise" from the trust-busters who claim to act on principles of that same Thomas Jefferson.

Before we can clearly understand the influence of Fichte, Lassalle, and Rodbertus on both the socialists and national socialists, we must investigate briefly the part of their doctrines that has been adopted by each group. Fichte started as an admirer of the French Revolution and in his younger years published political tracts abusing the feudalistic and absolutist trends

¹ Univ. of Chicago Press, Chicago, 1944.

² *Ibid.*, pp. 168-69.

in many German principalities. Economically Fichte was a mercantilist; politically he became, under the impact of the Napoleonic wars and the eloquent manifestation of the weakness of a divided Germany, more and more of a nationalist, without, however, losing himself in purely chauvinist arguments. Later socialists became acquainted with some of Fichte's works chiefly through Lassalle who considered him an important political philosopher. It would be wrong, however, to claim that he was regarded by anyone as a father of socialism; certainly his influence was much less than even that of Hegel. It is true that the socialists noted with satisfaction the occasional anti-feudalistic, anti-clerical, or egalitarian ideas in Fichte, but they did the same with the Greek philosophers, the medieval and humanist utopians, and the religious reformers. It would be almost equally preposterous to regard Plato, Thomas More, Jan Hus, Thomas Campanella, or Winstanley as fathers of German socialism.³

The case of Lassalle and Rodbertus is somewhat different from that of Fichte. Their doctrines were adopted more fully by the socialists than those of Fichte, but only in a very limited sense can they be regarded as fathers of national socialism. (It would be especially strange if the national socialists so regarded Lassalle, who was of Jewish parentage.) The original national socialist writers were not acquainted with either Lassalle or Rodbertus. Their names do not even appear in the writings of Rudolf Jung, Count E. v. Reventlow, and Gottfried Feder. It is likely that Lassalle and Rodbertus were not introduced in the national socialist literature until 1934 by Sombart in his *Deutscher Sozialismus*. After that, occasional references to Rodbertus and Lassalle appear, but I have been unable to locate a single source which treated their views with genuine understanding.⁴

Lassalle and Rodbertus developed similar political philosophies, both assigning to the state an economic rôle. Their views were based on the Hegelian *Rechtsphilosophie*, but whereas Marx, who also derived his philosophical inspiration from Hegel, "turned the Hegelian philosophy upside down," Lassalle and Rodbertus followed Hegel in maintaining that the state is a moral category (*sittliche Idee*) standing above the individual. But whereas for Hegel this moral category was absolute (*i.e.*, objectively fixed) and the individual completely subordinated to the state and its purpose, Lassalle and Rodbertus assigned to the state a purpose derived from the individuals composing it. The purpose of the state according to them is to bring about the greatest freedom of the individual, which it achieves by being a welfare state, a "*sozialer Staat*."⁵ This view is most clearly expressed by Lassalle in

³In the latter part of the nineteenth century it became fashionable among German socialists to look for egalitarian ideas among the old philosophers and reformers. The two outstanding examples of this literature are found in Karl Kautsky, *Die Vorläufer des neueren Sozialismus* (Stuttgart, 1895), and Georg Adler, *Geschichte des Sozialismus und Kommunismus von Plato zur Gegenwart* (Leipzig, 1899).

⁴The fullest discussion of Rodbertus and Lassalle in national socialist literature is to be found in Friedrich Schinkel, *Preussischer Sozialismus* (Breslau, 1934), which shows little understanding of the economic or political theories of either of the two men.

⁵The chief exponent of Lassalle's "state" or "national" socialism was Bernhard Harms

the statement that "the purpose of the state is to bring the individual to his positive development and progressive growth, in other words, to create the true foundation of human destiny, *i.e.*, of the culture of which the human race is capable; it is the *means for the education and development of humanity to freedom*."⁶

Nevertheless, it is significant that in the later history of German socialism the Marxian doctrine of opposition to the state prevailed over Lassalle's aim to remake bourgeois Germany into a welfare state. The reason for this is to be found not only in the more compact logical theory of Marxism, but also in the fact that the German socialist movement carried forward the rationalist democratic ideals adapted from the French Revolution.⁷ These ideas had slowly filtered into Germany until they had provided the impetus for the revolution of 1848. This revolution for a liberal bourgeois democracy was hailed by the socialists as their work, and later they always identified their political aims and ideals with a considerable part of those held by the 1848 revolutionaries. Professor Hayek has thus to admit that after 1870 "the national socialist elements receded for a time into the background."⁸ This is rather an understatement since the national elements were completely absent among the socialists, even among those who, following Eduard Bernstein, had given up the theory of the social revolution. In this period falls the great struggle of the German socialists with the German state. It is impossible here to mention all the incidents between the socialist party and the guardians of the idea of a strong nationalist state—in the *Reichstag*, in the press, and in scientific literature. It must suffice to mention just a few examples. The socialists voted and agitated consistently against government monopolies: for instance, in 1874-76 against the state ownership of the railroads and in 1882 against Bismarck's tobacco monopoly. In 1892 there took place in socialist circles a debate on state socialism. The issue was discussed at the party conference of 1892 at Berlin and a resolution condemning state socialism was passed by a unanimous vote. The argument was summarized by Wilhelm Liebknecht, one of the leading socialist deputies: "The nearer capi-

in his *Ferdinand Lassalle und seine Bedeutung für die deutsche Sozialdemokratie* (Jena, 1911), which is criticized in S. Baron, *Die politische Theorie Ferdinand Lassalles* (Leipzig, 1923). A different, and for our purposes more significant, analysis of Lassalle's political theories is to be found in Franz Mehring, *Geschichte der deutschen Sozialdemokratie* (Stuttgart, 1897), Vol. I, pp. 515 ff., and Eduard Bernstein, *Ferdinand Lassalle und seine Bedeutung für die Geschichte der Sozialdemokratie*, in *F. Lassalle, Reden und Schriften* (Berlin, 1893), Vol. I, pp. 101-06. These last two authors, both recognized socialists, represent the way in which Lassalle's ideas were interpreted in pre-1914 German socialist circles.

⁶ F. Lassalle, *Arbeiterprogramm*, in *Reden und Schriften* (ed. Bernstein, Berlin, 1893), Vol. II, p. 46. (My italics.)

⁷ This same opinion is also expressed by Eduard Heimann in *Mehrwert und Gemeinwirtschaft* (Berlin, 1922), pp. 112 ff., and by Lord Keynes in *The End of Laissez-Faire* (London, 1926), p. 45, who points out the utilitarian roots of nineteenth century socialism. Cf. also the pertinent remarks in Werner Cahnmann, *Der Ökonomische Pessimismus und das Ricardosche System* (Halberstadt, 1929), pp. 14-15.

⁸ *Op. cit.*, pp. 168-69.

talism comes to its end, disintegrates, and falls apart, the better bourgeois society understands that, in the long run, it cannot defend itself against the thrust of socialist ideas, and the nearer we are also to the time when state socialism will be proclaimed in all earnest;—*the last struggle which social democracy will have to fight* will be fought under the slogan: *Here Social Democracy—Here State Socialism!*"⁹

In matters of trade policy the socialists overwhelmingly favored free trade. They supported the Caprivi treaties of 1892, which contained important tariff reductions, as a step in the right direction. This does not mean that protectionist arguments were not forthcoming from socialist ranks, but the proponents of protection were consistently defeated in party councils and lacked support from the membership at large.¹⁰ The free-trade position of the German socialists was so unshakable that even a non-socialist writer called them the "guardians of that Manchesterism once so severely spurned by them."¹¹

Socialist opposition to any form of nationalism appeared most clearly in the consistent socialist propaganda and parliamentary vote against militarism and the army and navy budget, and in favor of disarmament. Professor Hayek quotes August Bebel correctly as remarking in 1892 that "the Imperial Chancellor can rest assured that German Social Democracy is a sort of Preparatory School for militarism."¹² However, he omits to add that the remark was made ironically. In the session of December 13, 1892, the chancellor in a speech had remarked that army officers were satisfied with the discipline shown by socialist recruits. Bebel, referring to the discipline in the socialist party, then made the above remark. That it was meant ironically and was so understood is proved by the stenographic report which contains the word "laughter" after the quoted sentence.¹³ It would be strange indeed if Bebel had meant these words seriously, since in his report to the Social Democratic Party Conference of the same year Paul Singer, the chairman of the conference, reaffirmed the attitude of the socialists to the military program of the government: "Not a man, not a penny for militarism, for the ruling military system."¹⁴ This anti-nationalistic attitude of the socialists on numerous other questions—on agricultural policy, anti-monopoly policy, international treaties, colonial policy, and others—could be demonstrated by a mass of similar evidence.

⁹ Cf. *Protokoll über die Verhandlungen des Parteitags der Sozialdemokratischen Partei Deutschlands* (Berlin, 1892), pp. 182-83. The whole debate, *op. cit.*, pp. 173-215, is very illuminating on the anti-statist attitude of the overwhelming majority of socialists.

¹⁰ Cf. *Protokoll über die Verhandlungen des Parteitags der Sozialdemokratischen Partei Deutschlands zu Stuttgart* (1898), pp. 172-205.

¹¹ Julius Becker, *Das deutsche Manchesterium* (Karlsruhe, 1907), p. 99.

¹² *Op. cit.*, p. 169, note. Professor Hayek also says that the remark was addressed to Bismarck. In actual fact, Bebel's words were directed against a remark of Caprivi. Bismarck's chancellorship ended in 1890.

¹³ *Stenographische Berichte über die Verhandlungen des Reichstags*, II. Session, 1892/93, Vol. I, p. 303.

¹⁴ *Protokoll über die Verhandlungen des Parteitags der Sozialdemokratischen Partei Deutschlands* (Berlin, 1892), p. 131.

Professor Hayek bases his chief proof for the nationalist roots of German socialist on three writers whose ideas are said to have been developed by their acquaintance with socialism, and who published tracts of a highly biased and chauvinist nature during the First World War. These men are Werner Sombart, Johann Plenge, and Paul Lensch. Of the three only Lensch was an official party member. Sombart, it is true, had been sympathetic to the labor movement and had been fascinated by Marxian ideas, but he was a strong individualist intellectually and there is no doubt that his ideas were developed quite independently of his acquaintance with socialist doctrines.¹⁵ Sombart himself, even before his break with the socialist movement, would have been the first to say most decidedly that he remained a partisan only as long as he found himself in agreement with Marxian ideas.

Plenge was never a socialist and never understood either Marx or the later socialist theories. This is rather neatly shown in a book review of Plenge's *Marx und Hegel* which Franz Mehring wrote in 1911.¹⁶ The review is a biting satire of Plenge's ignorance of Hegelian and, above all, of Marxian doctrines. Even if this testimony of an eminent socialist theorist were not available, a glance at Plenge's writings would convince anyone of his utter incompetence to stand for anything but his own narrow views; he will also learn that Plenge was not only not a socialist, but not even a worthy critic.

There remains Lensch. Lensch actually was a socialist, and in his younger years had belonged to the radical wing of the party. He became a deputy to the *Reichstag* and (together with Haase and Karl Liebknecht) opposed the granting of war credits to the government when it was discussed in the August 3, 1914, session of the Social Democratic *Reichstag* fraction. It must have been in the short period between August, 1914, and the spring of 1915 that he changed his views completely. Part of this change might be explained by Lensch's ambitious character, and by his quarrels with the other leaders of the left wing (especially with Liebknecht and Rosa Luxemburg). Be that as it may, one thing is certain: Lensch's conversion was not representative of socialist opinion in general, and his nationalistic outburst was flatly repudiated by the majority of the party. Lensch's pamphlet, *Die deutsche Sozialdemokratie und der Weltkrieg*, was subjected to a ruinous criticism by Karl Kautsky and Gustav Eckstein, who attach to Lensch's pamphlet such epithets as "ridiculous," "directly wrong," and "erroneous."¹⁷

In general the attitude of German socialists during the First World War was one of surprising detachment and objectivity. There was a small group,

¹⁵ This fact is emphasized again and again by the critical attitude which socialists adopted toward Sombart. More than once they declined to accept his public utterances as representing their views and devoted considerable space to give expression to their disagreement with Sombart, even in his "Marxian" period. Cf. especially Rosa Luxemburg, *Die deutsche Wissenschaft hinter den Arbeitern*, which appeared in 1900, and her article *Im Rate der Gelehrten* which appeared in 1903. Both articles are reprinted in Rosa Luxemburg, *Gegen den Reformismus* (ed., Paul Frölich, Berlin, 1925), pp. 221-51.

¹⁶ *Die Neue Zeit*, Vol. 29, II, pp. 143 f.

¹⁷ Gustav Eckstein, "Englands Siegespreis," *Die Neue Zeit*, Vol. 33, I, pp. 705-711, and Karl Kautsky, "Zwei Schriften zum Umlernen," *Die Neue Zeit*, Vol. 33, II, pp. 34-42.

led by Ludwig Frank and Eduard David, who confessed after the outbreak of the war their conversion from internationalism, but hardly one of them would have gone so far as to support Lensch. The majority of the socialists were opposed to a war of national aggrandizement. At the outbreak of the war a wave of patriotic enthusiasm, fanned by the press, swept the country; nobody remained unaffected and the great mass of Social Democratic workers swung around to the support of the imperial government. Hence many socialist deputies voted for the war credits, because they realized that otherwise they would be alienated from the masses whom they represented.¹⁸ Nevertheless, there continued to be a consistent, strong opposition to the war, and the support of even those socialists who voted in favor of the military budgets was based on the condition that, in the case of a German victory, the peace terms should not include acquisition of territory or the subjection of foreign countries, and that, both internally and externally, the German government should further a policy of social reforms, of strengthening democratic institutions, and of increasing the political rights of the masses.¹⁹

Our analysis shows that German Social Democracy before and during the First World War was in overwhelming support of democratic and even liberal ideas and was almost completely lacking in nationalistic tendencies. Those exceptions which existed have proved to be either spurious or special cases and can hardly be used as representative of the dominating ideas or as typical examples for an indictment of the socialists. A careful study of the socialist writers and politicians (particularly of such representative figures as Kautsky and Mehring, Bebel and Liebknecht, Luxemburg and Bernstein, Hilferding and Bauer), would show that not the ideas of Fichte and German romanticism, but eighteenth century materialism and rationalism which inaugurated the French Revolution had a much greater influence on them than any other single source besides the works of Marx and Engels.²⁰ Thus the socialist movement in Germany before and largely also during the First World War was eminently anti-statist and internationalist and probably the strongest democratic force in the political arena of the Germany of Wilhelm II.

BERT F. HOSELITZ*

¹⁸ August Winning, *Das Reich als Republik* (Berlin, 1928), p. 99, and Arthur Rosenberg, *Die Entstehung der deutschen Republik* (Berlin, 1930), pp. 71 f.

¹⁹ Cf. especially the declaration of Haase on March 10, 1915 (*Verhandlungen des Reichstags*, Vol. 306, pp. 45 ff.); of Ebert on May 29, 1915 (*ibid.*, pp. 172 ff.); and on April 5, 1916 (*ibid.*, Vol. 307, pp. 857 ff.), of Scheidemann on December 9, 1915 on occasion of a socialist interpellation in the *Reichstag* to enter into peace negotiations with the Allies (*ibid.*, Vol. 306, pp. 430 ff.), and on May 15, 1917, on occasion of a renewed interpellation to determine peace aims based on international conciliation (*ibid.*, Vol. 310, pp. 3390 ff.).

²⁰ The importance of this fact was recognized clearly by Engels who placed much emphasis on the influence of English and French materialism on post-Hegelian German thought. See his *Socialism, Utopian and Scientific* and Part II of his *Ludwig Feuerbach*. The same view is also expressed by F. A. Lange, *Geschichte des Materialismus* (Iserlohn, 1877), Vol. II, pp. 70 ff.

*The author is instructor in economics in the College of the University of Chicago.

II

Mr. Hoselitz's criticism of Hayek's Chapter XII—or rather of his pages 168 and 169—is right as far as it goes. Bebel's utterance was ironical; why else should he and his party have voted against the appropriations for the army in the Reichstag year after year? Just as dogmatic and unanalyzed as was the party's belief in the socialization of the means of production as a domestic panacea was its belief in free trade in the international scene. It is no exaggeration to say that in all international questions, political and economic, the party blindly followed a radical, dogmatic liberalism.

The trouble is that Hayek has missed documents and arguments which would have made his criticism much stronger. Three of them may be briefly suggested.

In the last decade prior to the First World War a fairly vocal movement for colonies and tariffs developed in the group around the *Sozialistische Monatshefte*, a well-written magazine which gathered all elements dissatisfied with the dominant orthodox doctrine, intellectuals on the one hand, trade union leaders on the other hand. Hayek's witness Lensch at that time was on the extreme left of the party; but his later position was foreshadowed by many articles and other publications of that group, among which those by Max Schippel, Gerhard Hildebrand, and Ludwig Quessel were perhaps most discussed. Mr. Hoselitz would be right, however, in arguing that that discussion among intellectuals had little bearing on the attitude and policy of the huge party itself, suspicious as it was of non-workers anyway. To the average worker it was enough to know that free trade and disarmament would considerably lower the cost of living and would, presumably, eliminate the danger of war. Hildebrand's expulsion from the party produced no repercussions whatever.

A second line of reasoning might refer to many passages in the correspondence and journalistic work of Marx and Engels themselves. Engels's liking of, and expert knowledge in, military art have always been well known to students. This inclination in itself would not prove anything; the prophet of a frankly revolutionary movement is almost under obligation to study military chances and techniques. But in the context of the Marx-Engels philosophy of history this military interest took a curious turn. Engels is known to have elaborated a plan of strategy for the German General Staff in the French war of 1870 and to have rejoiced in the German victories over the French Second Empire, which certainly was not among the more attractive phases of French history. Engels's attitude was logical in view of his and Marx's trust in the superiority of dynamic large-scale organization to make the final victory of socialism more inevitable and the socialist society more efficient; they simply regarded the German victory as preferable from the point of view of the dialectical progress of the socialist movement. Here one can see that the development from Hegel to Plenge—who is a far more original and forceful thinker than Mr. Hoselitz would admit, and incomparably superior to Lensch

—really leads through a phase in the thinking of Marx and Engels themselves. Even more outspoken was their German nationalism in relation to Germany's eastern Slavonic neighbors, Czechs, Poles, and Russians. They fully shared the prejudice of the German middle class about the alleged cultural and intellectual inferiority of all Slavs. They regarded Czechs and Poles as fitting material for German domination in the interest of European unification and preparation for socialism and made no bones about their profound contempt for those peoples.

A few students only know these facts because, for obvious reasons, only a few care to know them; pertinent quotations can be found in the instructive, though obsolete, book by Henry Bamford Parkes, *Marxism: An Autopsy*. As to Marx's and Engels's judgment on Russia, they took the backwardness of the Czarist régime for evidence of Russia's inferiority, just as the Western orientation of their philosophy of dialectical progress was taken by Dostoevsky to prove the all-pervading corruption of all Western movements and the unique mission of Christian Russia. Their anti-Russian and anti-Slav bias (compare the contempt of cultured and assimilated German Jews, previous to Hitler, for Polish and Russian Jews as members of inferior cultures!) made world history when the Social Democratic party of Germany, in 1914, voted for the war credits on the ground that German progress had to be defended against the Czar, to whom the Western allies had ignominiously sold out in their blind hatred against and jealousy of Germany. This is a complex picture, which shows much primitive German nationalism in German socialism but may not very well suit Hayek's purpose because of his own adherence to the Western ideology of progress.

The third point must suit him much better. There was a definitely totalitarian trend in many Social Democratic organizations under the Weimar republic. The excessive reliance of the big centralized labor unions on the state to govern industrial relations has often been referred to, less often their annexation and emasculation of the shop councils, which are the cells of industrial democracy. But an even more important development was conspicuous in many educational and leisure-time activities, when the working youth were urged, in the interest of proletarian culture, to set up their own class organizations for hiking and other sports, for chess and other games, and when the party claimed for the party-dominated elementary schools of the municipalities educational superiority over the family. This trend was by no means dominant, it is true, nor unopposed by the strongly humanist educators to whom the socialist movement was the left wing of a democracy conceived in the spirit of German idealism and poetry and transcending class lines. The two conflicting tendencies may have roughly coincided with the continued split, in the Social Democratic party itself, between its right wing, the former majority socialists, and the orthodox Marxist left wing, the former "Independents," who had split off during the war to oppose the unqualified acceptance of the imperial and military leadership and who rejoined the majority in 1922. But the political minority naturally was more conspicuous and may have counted more adherents in the cultural field than the majority, whose adherents merged their cultural activities with those of other

groups and classes. The strength and driving power of the movement here described cannot be doubted, although it is difficult correctly to appraise the sources of its strength. Was it merely the assertion of the totalitarian class tendency, which no doubt is inherent in Marxism, parallel to the victorious assertion of the same tendency in Russia and certainly much influenced by it? Or was it primarily a reaction to the growing totalitarian tendencies in German education in the opposite direction? At any rate, it was among the most spectacular signs of democratic disintegration in Germany.

EDUARD HEIMANN*

*The author, formerly professor in the University of Hamburg, has since 1933 been professor in the Graduate School of the New School for Social Research.

Addendum to *The Theory of Economic Progress*

I suppose that everybody who ever published anything has later wished he could alter it. At all events I find myself in that situation; and since one alteration that I would make, if I could, in my *Theory of Economic Progress* might help some readers to avoid what seems to be the commonest misinterpretation of the central theme of the book, I am tempted to try to offer it to my colleagues in this form.

We would all agree, I presume, that the values we all seek, individually and collectively, are those of human life and personality, the fuller realization of our potentialities as human beings, a greater measure of the creative achievements of the human spirit which in some sense or other make life worth while. The question is, What do these fine phrases mean?

For the overwhelming majority of mankind throughout history the answer to this question has been provided by revelation and authority, and, conversely, faith and obedience. But the development of reason destroys the intellectual sanction of authority and the validity of revelation, with the consequence that reason finds itself confronted with the sixty-four-dollar question.

The classical theory of the organization of the economic life of the community through the medium of price is a part of the effort we have made to answer that question. I don't see how anybody can challenge this. It has been declared and explained over and over again in a thousand different ways, and nobody has ever even attempted to explain the origin and growth and present meaning of the price theory in any other way. The question is whether the answer is correct and adequate. Offhand denial that it is any answer to any question seems to me to mean only that the deniers know in their hearts that it will not do.

What form does the answer take? In effect it is that of referring the whole problem to the individual conscience, one which comports closely with the whole "Protestant" trend of modern times, as many students have exhibited at length. We may disavow ever thinking that the price system achieves perfect justice, but we certainly have thought, and still think, it

does something. The most popular current phrase for what it does is that of bringing about the "efficient use of resources." And what, pray, does "efficient" mean? We would all agree, I judge, that it does not refer to any economist's notion of what is or is not efficient but rather to the consciences of all members of the community as registered in their "wants."

The price theory reposes a very great burden of significance upon wants, for obvious reasons. Not to do so in effect robs the key phrase of its key word, "efficient." It then becomes simply "the use of resources" that price effects, and we are instantly brought up against the unanswerable question, "So what?" If the price system has any significance at all, it is the significance it gains by "registering wants."

And what are wants? In recent years economists have taken to replying that wants are unanalyzable "primary data" and dropping the question like a hot poker. And well they might! It's a red-hot question, right enough, and it only gets hotter if we drop it back into the fire. For wants are significant only if they have the sanction of authority and the validity of revelation. That of course is what Protestantism claimed for the individual conscience. The only alternative is utter relativism, and that is the inescapable corollary of current sociological teaching.

This "absolute relativism," if I may be allowed such a phrase, is of course unsatisfactory both intellectually and practically, as a great many students have long since realized. Indeed, it is that realization which has impelled many intellectual leaders to turn back to the other alternative. But their resolution of the dilemma of contemporary social thinking, justified as it is by the intellectual bankruptcy of complete relativism, nevertheless does also merit the charge that it is a "failure of nerve." For the resolutely objective scrutiny of human behavior, especially in historical perspective, does reveal something more than the relativity of all wants and values to the fashions of the time and place.

Viewed in historical perspective the panorama of human experience does constitute an amazing achievement. It is easy enough to sneer at bathtubs and air conditioning. Nobody considers either of these the pinnacle of modern achievement. (One might just as sensibly dispose of Greek civilization by sneering at the absurd tonsorial practices of the contemporaries of Aeschylus and Plato.) Even if the last five centuries are left completely out of account, the span bounded by the Aurignacian caves and the cathedral of Chartres still represents an amazing achievement. To say that one society wanted caves and the other wanted cathedrals is simply ridiculous. The inescapable truth is that human experience does manifest a developmental pattern of some sort. To close one's eyes to it is simply to go blind.

This is the point at which I should like to offer my addendum. Because I have tried to focus my readers' attention on this developmental pattern and have tried to avoid repetition of empty commonplaces about the values of human life and personality and all that sort of thing, I seem to have left the impression that I am offering "mere gadgets" as the criterion of value *instead of* human life and personality, the fuller realization of our potentialities as human beings, the creative achievements of the human spirit, and so

forth; and because I have tried to exhibit and emphasize the logical and ethical and therefore economic significance of the continuity which is actually present in the technological process and in it alone and is therefore the sole alternative to the absolutism of revelation and the utter relativism of "wants," I seem to have given some readers the impression that I regard "mere continuity" as a master principle without reference to what it is that is continuous.

But misunderstandings such as these are as unnecessary as they are unfortunate. Surely there is no question of substituting anything else for human life as the sum of values. By all means let us assume our common humanity as the repository of all value. The question then is, With what meaning can we fill this otherwise empty commonplace? If I have questioned the validity of the axiom which makes "consumption" the "end" to which all other economic activity is the "means," I have done so because, for reasons I have given at some length, these words fail to supply the meaning we require and are largely responsible for the intellectual sterility of the price theory of which they are an indispensable part. They refer only to the "satisfaction" of "wants," of which we can say only that people want what they want.

In contrast to all that, the technological continuum, which contains all the arts, all the sciences, and the whole vast range of tools and skills and know-how of which the arts and the sciences are the highest expression, does in fact contain and embody the judgment of all mankind and of all ages as to what is most valuable in life and what makes life worth while. As such it is *not* something to be considered *instead of* the values of human life and personality, the fuller realization of our potentialities as human beings, and the creative achievements of the human spirit. Neither is it "merely" the scientifically-known instrumental "means" to the attainment of otherwise-known consummatory "ends." On the contrary, it is the answer which reason and organized knowledge give, and have always given, to the question what these fine phrases—human life and personality, the creative achievements of the spirit—mean. Living is doing. Only in doing does living become significant.

Whether this life-pattern of mankind is properly or adequately designated in terms of "instruments" or of "techniques" is a legitimate question. The terminological difficulty is indeed considerable. Long usage has wrought a most unfortunate cleavage between art and science and between both of these and the humbler but vastly more extensive activities of the whole race. The people who say that art embodies the solution of the problem are right but only partially right, and the same is true of science. Since both of these are consummations of activities and values that are common to all mankind, it seems closer to the truth to give the whole pattern some such common designation. This is the consideration that led Dewey to use the designation "instrumentalism" and Veblen that of "technology."

Dewey himself has recently declared that "technology" is after all perhaps the less misleading term, but that is certainly an open question. Certainly the language we use in dealing with these problems is open to improvement at

all times, and anybody who can find ways to improve on it will be conferring great benefits on all of us.

No such benefit accrues from the sneers of those who dismiss the whole effort as that of "making a god of the machine," "building more machines to build more machines," etc., etc. Moreover, those who sneer assume a very grave responsibility. What is their answer to the conundrum of the utter relativity of wants? They have managed to becloud the basic issues to which their own efforts are presumably addressed with a smoke screen of curves and integration signs. But the issues still remain, and meanwhile time is running out. Revelation and authoritarianism still threaten to resume their ancient rôle. If price theory is only a way of abandoning the effort in the grand manner—if "value is indefinable," "wants are primary data," and "equilibrium is just equilibrium"—then its exponents can ill afford to sneer at anybody. If, on the other hand, price theory does indeed contain the answer, then its exponents would be well advised to find it and be quick about it.

C. E. AYRES*

*The author is professor of economics at the University of Texas.

Cost Accounting and Statistical Cost Functions

The note which appeared under this title in the June, 1945, issue of the *Review* suggests that the linear biases of cost accounting contribute to the linearity of statistical cost functions, as these have been derived. The case presented was summed up in the statement: "Accounting data with their hazy rubrics and linear biases seem incapable of producing anything but a linear cost function."

Now it is true that the procedures of cost accounting are such as to yield figures for *unit product* cost with certain biases. The conventional notion of "normal cost" employed in the great bulk of all cost accounting is a kind of annual average cost; as such, it levels out cost fluctuations that arise from deviations from what is considered "normal" for the period, including variations in the rate of activity in the plant or department. It is also true that "the accountant's mixture of variable and fixed costs" is responsible for certain kinds of errors that may have misleading effects.¹ However, these facts need not surprise those who are familiar with the thesis developed in J. M. Clark's *Economics of Overhead Costs*.

There is a distinction to be maintained between accounting records of *cost incurred*, and those reclassifications of cost made by cost accounting procedures. The initial appearance of costs in accounting records as those

¹ See, for instances of the cost accountant's recognition of this:

Fred V. Gardner, *Variable Budget Control* (New York, McGraw-Hill, 1940), pp. 41-48, ff.

J. J. W. Neuner, *Cost Accounting* (Chicago, Irwin, 1940), pp. 674-97.

W. J. Vatter, "Accounting Measurements of Incremental Cost," *Jour. of Bus.*, Vol. XVIII, No. 3 (July, 1945), pp. 145-56.

costs arise from market acquisitions of goods and services or the building up of contractual obligations and equities is a quite different phenomenon from the results of cost accounting which appear in the form of unit product costs reflected in inventory valuations and expense charges. The figures obtained by distribution, apportionment and allocation of factory charges in the cost accounting process are indeed useless for statistical determination of marginal costs related to changes in the rate of output.

The data that are employed to derive statistical cost functions are not, however, cost accounting figures or income statement data. This is clearly indicated in the United States Steel study to which the author referred. In the report on this study, the basic data are tabulated under captions such as Interest, Taxes, Pensions, Payroll, Depreciation and Depletion. These are not figures which result from cost accounting manipulations; they represent measurements of costs incurred regardless of whether those costs have entered inventory tabulations or have been charged against operating revenue. Indeed, the report includes the specific statement: "The payroll figures do not exactly reflect the salary and wage costs in the goods sold, because some payroll goes into inventory, and some of the goods sold are taken from the previous year's inventory."²

Charges for interest are not recognized as factory charges, and do not enter the field of cost accounting under accepted practice; further, they are in fact time costs rather than activity costs in the first instance, and apply only to interest actually paid or accrued, not to interest on investment as a whole. Taxes and pensions are legal or contractual obligations of the enterprise as a whole, not merely the amounts carried through cost accounts. Orthodox accounting procedures do not recognize federal income taxes among factory charges at all. It would seem that cost accounting had but little to do with the form or the content of the data used in the study referred to.

There is, of course, one source of linear bias that permeates all accounting procedure: the problem of joint-cost. This is reflected in a great many phases of accounting;³ for the present purpose it is important that two specific instances be recognized.

The first of these is the case of storable goods purchased for inventory and later released to operating centers. Here, the stream of incoming charges viewed against another stream of withdrawals from stores raises a joint-cost problem of no small dimensions, especially with regard to price fluctuations. To the extent that averages are used in pricing withdrawals, the effects of price changes are distributed linearly. But even this could affect the data employed in a statistical cost study only through inventory valuations at the end of the respective years, and such influences would be slight. In any event, the physical measure of units withdrawn from stores in total—the kind of data useful for statistical purposes—would be entirely undistorted by any accounting procedure.

The second instance of joint cost is the problem of amortization encoun-

² United States Steel Corporation, *T.N.E.C. Papers*, Vol. I, p. 241.

³ W. J. Vatter, "Limitations of Overhead Allocation," *Accounting Review*, Vol. XX, No. 2 (April, 1945), pp. 163-76.

tered in the form of depreciation and depletion charges. The spreading of fixed asset cost on a time basis would of course yield fixed charges for any given year. The assignment of such charges on the basis of physical units of material or product, or "production hours" bases would result in variable charges, but charges that would tend to be constant for each unit of output, and hence "linear" for purposes of determining cost functions. In any event, this is not a cost accounting problem, nor do the results depend upon accounting technique beyond the necessary compromises for the sake of getting some reasonably useful answer to the problem. There are elements of expediency in every measurement—"the very meaning of measurement depends upon what we happen to be measuring."⁴

This writer has no desire to take a position on the issue of whether, in the statistical studies referred to, the "significant elements of cost variation have been smeared into linearity to the point where the results begin to lose their meaning as cost functions." The record should be made clear, however, as to the source and the amount of linear bias introduced by cost accounting procedures in enterprise cost-determination by statistical methods.

WILLIAM J. VATTER*

⁴ P. W. Bridgman, *The Logic of Modern Physics* (New York, Macmillan, 1928), p. 16.

*The author is assistant professor of accounting in the School of Business, University of Chicago.

BOOK REVIEWS

Economic Theory; General Works

General Equilibrium Theory in International Trade. By JACOB L. MOSAK.
Cowles Commission monog. no. 7. (Bloomington: Principia Press, 1944.
Pp. xiii, 187. \$2.50.)

This is a little gem. In the modern period of ascendancy of the journal article, advanced treatments in book form of fundamental economic problems are all too rare, and this one provides a masterly, compact exposition and commentary on that highest development of the neo-classical school of thought, Hicks's *Value and Capital*. It is only fair to warn the reader that part of the compactness of the book and much of its elegance stems from the fact that the author has not hesitated to treat essentially mathematical subjects mathematically.

Not more than one-third of the book is concerned with international trade, which is probably as it should be, as this subject—aside from its traditions and policy aspects—constitutes an analytical special case of general economic theory. The great advances which have been made in economic theory since Alfred Marshall are pointed up by a comparison of Mosak's treatment with the fifteen-year-old *Mathematical Reformulation of International Trade* of Theodore Yntema, a work confining itself to the application of partial equilibrium analysis to international trade. The present approach is more akin to the spirit of classical English international trade theory (which achieved its manageability not so much by making the *ceteris paribus* assumptions of partial equilibrium as by confining attention to highly simplified few-commodity-factor-country cases). And at the same time that the greater generality and comprehensiveness of the Walrasian system are achieved, skillful use of secondary maximum conditions and market stability conditions breathes formal fruitfulness into the analysis; so that the demonstration that an equilibrium is causally complete and subject to determinate economic law can be supplemented by the description of the qualitative properties of that law.

In the literature of international trade the "Transfer Problem" has enjoyed a considerable vogue ever since the famous Keynes-Ohlin controversy over the secondary reparation burden upon Germany resulting from adverse changes in her "terms of trade." Here, for once, Keynes seemed to be in the uncharacteristic position of siding with the classical camp, in that his position coincided with that of such orthodox stalwarts as Pigou and Taussig. Of course, more careful historical research revealed affinities between the self-

styled "modern" approach of the Ohlin followers and that of Ricardo, Bastable, Wickcell and others. It is the more surprising that Keynes, who has recently placed so much emphasis on income effects, should have left their elucidation to Ohlin, confining himself to a purely statical Marshallian equilibrium analysis in which, erroneously, the offer curve of one country fails to shift.

Mosak subjects the statical problem to a careful reëxamination. He seems to abstain carefully from explicitly acquiescing in the prevailing opinion of Viner, Haberler, and others that, while the terms of trade *may* shift in either direction, there is an *a priori* presumption that they will shift *against* the paying country. In a statical world of exchange of two commodities between two countries with no transportation costs or tariffs, the qualitative answer is seen to be independent of price elasticities of demand and to depend only upon the relative income-elasticity shifts of demand between the goods in each country. *Absolutely no presumption in either direction seems indicated.* When he comes to taking production effects and other factors into account, Mosak indicates how the answer depends upon relative substitutability and complementarity of domestic products and factors with the import and export goods of each country. Perhaps purposely, he refrains from stating whether the "presumptions" enunciated in Viner's *Studies in International Trade* are valid, although he does qualify the conclusions found in that book on the much less important problem of absolute price levels and gold distribution. As Mosak himself is probably aware (*cf.* p. 38n.) these results are rather trivial, since the analysis proceeds upon the basis of artificial "neutral" money assumptions which, if valid, make the problem of absolute prices of little consequence.

It is this reviewer's conjecture that (1) there may be something after all in the orthodox position that terms of trade shift against the paying country; (2) that once again Keynes's intuition had run ahead of his powers of analysis; (3) that Ohlin and not Keynes was "classical," in the "bad" sense of having an inadequate theory of effective demand of the implicit Say's Law variety; and (4) that the essential condition for the orthodox presumption lies in the Keynesian "leakages" or *incomplete* income effects. Throughout Mosak is Hicksian rather than Keynesian—which is quite a difference!—so that we must wait for Lloyd Metzler's forthcoming book to throw more light on these matters.

Space precludes a detailed discussion of Mosak's felicitous exposition of modern economic theory. Suffice it to say that here is an ideal one-hundred-page textbook assignment for intermediate and advanced classes. Also, almost casually in passing, Mosak corrects the Hicksian error that extreme complementarity may make a symmetrical system unstable (p. 42); the widespread Keynesian impression that a positive rate of interest is "merely" a liquidity premium which would disappear if uncertainty and transaction friction were abolished (p. 20); two arguments of Frank Knight as to why the rate of interest could never be zero (p. 121 and p. 141); and a number of other important misunderstandings. The present reviewer is still not quite at ease with Mosak's analysis of the possibility of unemployment (*circa*

p. 154), any more than he feels that Hicks has performed a successful marriage between Walras and Keynes or between those two neutral money economists, Ricardo and Lerner.

Finally, the profession must be grateful that one of the ablest young economists should have found the time and energy in the midst of important wartime duties for the arduous task of preparing a difficult manuscript for publication.

PAUL A. SAMUELSON

Massachusetts Institute of Technology

The History of Economics in Its Relation to Social Development. By W. STARK. (New York: Oxford Univ. Press. 1944. Pp. viii, 80. \$2.00.)

This little book was written in the Marshall Library at Cambridge by a German scholar who came to England in 1939. Despite its large title, it is not a history of economic thought in the usual sense of the term, but is a brief ambitious essay in the materialistic interpretation of economics. The author concedes that his "point of view is not entirely new," but thinks "it is here for the first time consistently applied." It is a now familiar thought that economic theory, being an attempt to understand and explain economic conditions, undergoes change as conditions change. However, it is generally recognized that theory changes more or less tardily and imperfectly, and that at any one time there are rival theories with many shades of difference. But the author means by what he calls the consistent application of this view, its extreme application without qualification. He declares: "Every single theory put forward in the past [is] a faithful expression and reflection of contemporary conditions." No place is left for intellectual and temperamental differences, education, or personal and group interests, conscious or unconscious. The various economic doctrines in each of the four periods recognized by the author, were, according to his view, all of one piece, all equally faithful interpretations of contemporary conditions.

In his effort to make this *a priori* generalization appear to fit the stubborn facts, the author has had to juggle dates and ignore the realities to an astonishing degree. For example, it does not give him pause that in the period between 1750 and 1820 (which he conceives of as a unity) the theories of the physiocrats, Adam Smith, Lauderdale, Say, Malthus, Ricardo, and others, were in many ways conflicting; according to the author, each was faithfully "mirroring the socio-economic reality within which it took its origin," to borrow one of his figures. He sees no difficulty in the fact that in 1803, J. B. Say in France, rejected Smith's labor theory of value and recognized the essential rôle of capital in relation to value; whereas, in far more mechanized England, Ricardo, fourteen years later, still defended the labor theory with its absurd consequences in distributive theory. We are asked to believe that Ricardo was logically justified in accepting the labor theory in 1817 because at that time so little "fixed capital" was in use in England, but when he partially repudiated the doctrine three years later (as evidenced by a letter to McCulloch), he simply "yielded to the victorious march of mechanization" which, it is implied, had occurred in England

between 1817 and 1820 (years of financial depression). Say's vigorous and effective criticism by letter, personally, and in print, in the intervening years, had nothing whatever to do with Ricardo's partial change of heart! Rather, it has escaped the author's attention.

It would be unprofitable to test the author's heroic generalization in other equally vulnerable assertions. His versatile scholarship ranges widely over philosophy, literature, religion, and the other social fields, yet serves but to ornament an ill-arranged and repetitious argument. The result is not so much to clarify as to bewilder the reader.

FRANK ALBERT FETTER

Princeton University

The Idea of Progress in America, 1815-1860. By ARTHUR ALPHONSE EKIRCH, JR. Stud. in hist., econ. and pub. law, no. 511. (New York: Columbia Univ. Press. 1944. Pp. 305. \$3.50.)

"This study is an effort to portray the American faith in progress during an important period of our history and to analyze the idea in terms of the interests and groups which it served or promised to serve" (p. 7). The task undertaken presented special difficulties, because the generalization of faith in progress among all elements in a diverse population produced a great variety of interpretations of this vague and imperfectly developed concept. The intellectual significance of the concept was obscured, and in this period was clearly of secondary importance in the United States. The writers and orators used the idea of progress as a means to their immediate ends without much regard for the critical problems involved in distinguishing the idea of progress from related concepts of growth and change. It is somewhat bewildering to pass in review such a mass of conflicting material without any positive analysis of the idea itself. One naturally asks the question, Did the experience of the United States in this period contribute in any way to the development of the idea of progress? No answer can be given unless we have some clearly defined statement of the content of the concept as it came to the United States from Europe, and some notion of the meaning given to the concept by the most thoughtful minds in 1860.

The author is more concerned with the attitudes of various writers than with the validity of the ideas expressed, so that it is not easy to discover what view he adopts. He cites with evident approval some passages from Bury that give tone to the whole text. "This idea that 'civilization has moved, is moving, and will move in a desirable direction' has been compared with the concepts of Fate, Providence, or personal immortality. Like those ideas it is believed in not because it is held to be good or bad, nor because it is considered to be true or false . . . 'belief in it is an act of faith'" (p. 11).

If we are to think of progress as an essentially intuitive act of faith in the forward movement of the entire social process, there would be little possibility of analytical treatment, and no reason to suppose that the ideas of one generation were much better or worse than those of another generation. From such a point of view, the American experience in the early nineteenth

century would be just a demonstration of the significance of this faith in a period of intense activity over the whole field of social development.

If we approach history in a somewhat less empirical mood, we may treat the idea of progress as a vital element in a concept of evolutionary process, subject to critical analysis, and distinguishable from mere change and growth. Such an attitude toward the concept of progress would require us to recognize that no mature formulation of the idea would be possible in the eighteenth and early nineteenth centuries, because the theory of evolution was so ill developed that no effective discrimination among the three basic concepts would be possible. The history of the idea of progress in the United States between 1815 and 1860 is a study of an idea in a period of maximum confusion among the various concepts that should be distinguished. Evolutionary thought was too incomplete, historical writing too largely empirical, and the popular will to believe too credulous to lead to anything but utter confusion.

The careful empiricism of the author gives us a painfully complete demonstration of this confusion of thought. Readers would be comforted if this confusion were offset by a positive statement of the meaning of progress today. In all this welter of ideas, what can we now accept as sound, what must we characterize as merely naïve, what must we stigmatize as a manifest perversion of a noble concept?

Any distinction among the concepts of change, growth, and progress must in some way restrict the idea of progress to the cumulative achievement of increased knowledge and skill. Mere change and growth must be excluded, as related but different phenomena. Early nineteenth century concepts of progress regularly included all phases of growth and change. The doctrines of manifest destiny and pro-slavery arguments included various elements that cannot be reconciled with any worthy social ideal.

There is, of course, a great deal of significance in an empirical study carried out with such energy and patience. In addition to the major works of leading authors and public men, a wide array of magazines was examined and many academic and occasional addresses were read. A considerable amount of manuscript material was examined, covering both letters and unpublished orations. The study rests, therefore, upon an unusually wide selection of literary sources. It exhibits the thought of the period at its best and at its worst: in its most inspired moments and in its most naïve deliverances. The review of this material is in itself a proof of intellectual progress: our thought does move forward.

There is a short sketch of the development of the idea of progress in Europe in the late eighteenth and early nineteenth centuries. The contacts with American thought are described with care, though with little detail on matters of doctrine. "The promise of the American political experiment" covers our faith in democracy, but includes also the attempts to justify our Indian policy, the war with Mexico, and the covetous longing for Cuba. It is painful, at this time, to read once more these justifications of ruthless aggression. The later chapter on the defense of slavery discloses some curious attempts to sanctify oppression and exploitation. Progress is presented as inevitable, impersonal, and ruthless. The chapters on Material Expansion,

Advancing Faith in Science, Programs for a New Society are loosely put together, but provide many interesting commentaries on the movement of thought. The discussion of the idea of progress held by the radical reformers is perhaps the most interesting single block of material. The contacts with Owen and Fourier provided continuing ties with European thought, and the transcendentalists gave a new tone to all the ideas.

These chapters emphasize the dangers that are incurred, when this single concept is detached from the larger systems of thought of which it is a part. Philosophical and literary critics deal with the history of ideas either by systematic analysis or by a rigidly defined treatment of the thought of a particular thinker. Each method has advantages and disadvantages: neither method can be pursued to the exclusion of the other. Dr. Ekirch raises the significant question of the validity of an approach through pure historical empiricism.

The achievement does not provide evidence that this method is sound or practicable. We have to deal with so many divergent concepts of progress that there is no clear focus of thought, and even the significance of the differences of opinion is lost. We have here no adequate account of the differences in the general approach to history and social development that lead to the wide range of differences in the idea of progress. Diversity becomes confusing when we have so little understanding of the grounds underlying these sharp conflicts of opinion. It is, therefore, difficult to feel that the historical development of ideas can be described significantly without more systematic analysis than Dr. Ekirch provides in this volume. He could perform a very great service to intellectual history if these studies could be carried further and developed on a larger scale with a somewhat different technique.

ABBOTT PAYSON USHER

Harvard University

Social Darwinism in American Thought, 1860-1915. By RICHARD HOFSTADTER. (Philadelphia: Univ. of Pennsylvania Press. 1944. Pp. viii, 191. \$2.50.)

The tradition of Jeffersonian democracy is but one trend in American social thought. Another heritage is that of fatalism, inequality, and pugnacity. Although the latter legacy, however cunning its political and religious disguises, can be traced easily to colonial times, its deliberate and systematic elaboration was undertaken only in the rugged half-century between the Civil War and the First World War. At present, when the ideal foundations of the American republic are defended against many-sided attacks, not only their own history and validity but also those of their opponents require re-examination. The brief monograph under review is concerned with the rise and decline of that phase of American social thought which was generated by Darwin, directly or indirectly through Spencer.

To facilitate an understanding of the intellectual climate in America in the two decades following the Civil War, the author opens with a description of the powerful acclamatory and refutatory impact of Darwin and Spencer on the American scientific and religious publics. The theoretical implications of

social Darwinism are demonstrated in the works of Sumner and Ward, the antipodean protagonists of the reaction to Darwin and, more directly, to Spencer in America. To show the social and ethical neutrality, if not elasticity, of Darwin's principles, the author then introduces a rather heterogeneous group of Darwinian interpreters, such as Goldwin Smith, Fiske, Drummond, and Kropotkin, who arrived at conclusions different from, and partly contrary to, those of Sumner. If this discussion serves as a balancing corrective to Sumner's one-sided inference of *laissez-faire*, the subsequent account of miscellaneous dissenters, such as Henry George, Bellamy and Cooley, strengthens the argument of Ward's meliorism. Of the final three chapters, concerned with pragmatism, trends in social theory before the First World War, and racism and imperialism, the most significant is that on pragmatism which countered most successfully the doctrines of social Darwinism which was declining anyway, and theoretically, although not historically, completed its fall.

The author's general aim of pursuing the historical development of Darwinian thought in American social theory has been achieved with judicious scholarship and literary skill. Considering the medley of social Darwinism, which only too frequently is as alien to Darwin's theories as Marxism is to Marx's, such an historical survey is almost a labyrinthian task. Although predominantly descriptive, the monograph ventures occasionally into interpretative analysis, especially with reference to the ideological nature of the social concepts of struggle for existence, survival of the fittest, and automatic progress. The author shows convincingly that these notions served as "scientific" explanation, and vindication, of the prevailing rugged individualism and predatory capitalism, and, later, of expansive imperialism.

It does not diminish its merits to point out that the study, being essentially an historical description, must be regarded as preparatory to a theoretical, especially ideological, investigation guided by the methods and aims of critical theoretical interpretation and, particularly, by requirements of the sociology of knowledge. A descriptive survey such as the present monograph has no reason to concern itself with the critical problems of meaning, logic and validity of the theories it reviews, and is, consequently, unable to reach theoretical conclusions. When, however, it does make incidental excursions into ideological issues, it is apt not to go beyond the elementary discovery that there is a parallel between the prevailing social, economic and political forces and the ideas propagated by the ruling class. One must recognize that even this valuable finding is fruitful only if it serves as a starting point for further examination of the relations between social structure and ideal superstructure. Moreover, meticulous concentration is required to avoid facile errors. For instance, there is the seeming paradox that the individualist Sumner rejected the principle of conflict in society, while the meliorist Ward accepted it. Is it not possible that, contrary to general assertion, the principle of "struggle for existence" may constitute the ideology of the ruled, as well as of the ruling, class?

Finally, it should be acknowledged that the author has been fully aware throughout the study that the salient theoretical issue of social Darwinism

concerns the implications of biological determinism for ethics and social action. The historian may well depict the period from 1860 to 1915 as a unit. The social theorist, however, would be ill advised to try to analyze Darwinian social thought without recourse to Malthus, with whom the biological movement of the nineteenth century began. Since almost all basic principles of Darwinism are traceable to Malthus, the social theoretical study of biological determinism must start with his doctrine. In spite of its fundamentally utilitarian orientation it constitutes the beginning of the pessimism and the irrationalistic positivism which Darwin later developed systematically, and which, far from ending in 1915, is one of the roots of the contemporary social and intellectual crisis.

PHILIPP WEINTRAUB

Hunter College

Economic History

The House of Hancock. By WILLIAM T. BAXTER. (Cambridge: Harvard Univ. Press. 1945. Pp. xxvii, 321. \$3.50.)

This volume, No. 10 in the series of Harvard Studies in Business History, is a study of the rise of the Hancock fortune under Thomas (1724-1764) and its decline under his more famous nephew John (1764-1793). Actually the detailed story of the business is carried only to 1775, after which date John Hancock shifted his main interest to politics and turned over what was left of his business to subordinates. The study rests largely on the Hancock Journals and Letter Books, most of which are in the collection of the Harvard Business School. The Hancock ledgers have been lost, but the author has been aided by the more complete accounts of Daniel Henchman, a merchant who aided Thomas in his early years and whose daughter Thomas married.

The book carries the subtitle *Business in Boston, 1724-1775*, and Professor Gras in the "Editor's Introduction" describes it as "a chapter in the history of mercantile capitalism—the oldest and longest-lived system of large-scale business." The American economic historian will find an even greater significance in this study. The reviewer has never discovered a clearer description of the technique of colonial trade as carried on by the American merchant and the problems which he faced. Moreover, the author, a professor of accounting in the University of Cape Town, evidently approached his task with a particular interest in the early technique of his own profession and fortunately with a flair for writing. The career of Thomas Hancock from his apprenticeship to a Boston bookbinder, through his long years as a merchant (importing, exporting and selling in Boston and the hinterland) to his activities as a government contractor in King George's War and the French and Indian War, include almost every phase of business activity open to a colonial merchant. How Thomas accumulated one of the largest fortunes in the colonies at a time when the carrying on of business of any kind was surrounded by the utmost difficulty gives ample opportunity to

develop the atmosphere and environment as well as the technique of eighteenth century trade. The mere conduct of business in an era of inadequate facilities in currency, banking credit, transportation and communication make the triumphs of later finance capitalists sometimes seem small indeed.

The author calls Thomas a "general merchant" and the title is appropriate, partly because it was difficult to be anything else if one operated on any scale in the colonies. Hancock, however, was more than that. Although no business was too small or, for that time and place, too great, Thomas sometimes specialized in a commodity with or without partners, bought or sold ships to carry his own commodities when such action seemed profitable, tried his fortune as a manufacturer and a land speculator, carried out army contracts, owned shares in privateers and was not averse to the evasion of mercantile laws or to a little smuggling. Thomas tried specializing in potash, whale oil and other commodities, but his success as a business man was mainly because of a willingness to shift quickly from one project to another as opportunities opened. His greatest profits came from army contracts. Contrary to copy-book maxims, specialization was not the road to wealth in colonial America, at least not to Thomas Hancock.

Little known to historians, Thomas Hancock played an important rôle in the business life of Massachusetts and in the development of the port of Boston. He willed his business to his nephew John, whom he had adopted and trained. But the business which Thomas had taken forty years to build up, John ruined in ten. Whether it was an inferiority complex from years of insecurity which impelled him to bold enterprises beyond his capacity, his increasing absorption in politics, or the fact that he operated in a period of declining prices and profits, John Hancock proved himself a poor business man. His economic career has but minor interest except in the part that he played in opposing British trade acts, and this opposition undoubtedly became increasingly political. Although the author comments briefly on all this, the story of the Hancock business closes with 1775, the year that John became President of the Continental Congress.

Professor Baxter ends the book with a chapter of general conclusions gleaned from his study of the Hancock business. Emphasizing again the inadequate communication and currency systems of the colonial period, he notes the minute scale of business operations. From the standpoint of volume and even of technique "American trade seems to have been nearer the middle ages than to our times." There is interesting discussion both of the rôle of the agent and of the partnership in colonial trade. Regarding the system of mercantilism, the author notes how it delayed improvement in communications, intensified the smallness of markets and aggravated monetary difficulties. The Hancock records do not mention a single case of participation in colonial trade by a foreign ship. On the other hand, mercantilism by no means always worked to the benefit of the home country. While the American market was held in thrall by Britain and British exporters extorted high prices, they also had to finance colonial trade in a lavish fashion. Prosperity, as Hancock proved, could come to colonials as well as to Britons.

The discussion gains significance when it is realized, as the author points

out, that the "unspecialized merchant" represented by Hancock was the "most vital figure in New England economy," just as the "merchant-capitalist" (which Hancock also was) represented the dominant force in contemporary Europe. Except for the detail on the business history of Thomas and John Hancock, this volume may add little to the knowledge of the colonial specialist; but it will make clear to the student and general reader the technique and problems of eighteenth century colonial trade. Despite the difficulties of wartime restrictions the paper is reasonably good and the format excellent. Fortunately the Series, in this volume, has dropped an earlier abomination of collecting the footnotes at the end of the book.

HAROLD U. FAULKNER

Smith College

Andrea Barbarigo: Merchant of Venice, 1418-1449. By FREDERIC C. LANE. Stud. in hist. and pol. sci., Ser. LXII, no. 1. (Baltimore: Johns Hopkins Univ. Press, 1944. Pp. 224. \$2.25.)

There is no "Andrea Barbarigo" in the *Enciclopedia Italiana*; indeed, Professor Lane is his first biographer. What inspired this biography was not the thought that Barbarigo needed a Boswell but rather the discovery in Venetian archives of Barbarigo's business papers—"the most complete business records which I have been able to find for any one Venetian merchant or mercantile firm." Of course, no quantity of manuscripts can make a merchant prince out of a moderately successful business man. Neither hero nor villain in the eyes of the author, Barbarigo furnishes a convenient focus and point of departure for the historical study of business methods and motives, forms and organizations, success and failure. Mr. Lane has admirably described his objectives:

The method here attempted is a sort of combination of biography with institutional history. I am not concerned, as is the true biographer, with the individual for his own sake and with his whole personality. I am interested in the individual as a means of interpreting certain institutions of his time. By means of Andrea Barbarigo's business records I have attempted to learn his hopes and fears and accordingly to discover what kind of influence was exerted on his behavior by various Venetian institutions such as the regulated voyages of the merchant galleys. . . . What sort of a merchant found these institutions favorable is the main question I have tried to answer. . . .

This kind of a study of types is better called sociological than psychological because it does not aim at a full analysis of personalities. . . . Economic historians have sometimes made the mistake of assuming the existence throughout recorded history of a perfectly rational and never changing *homo oeconomicus*. I hope that I have avoided this pitfall, that in picturing the profit-seeking calculations of Andrea Barbarigo I have let clearly appear how far his way of thinking was conditioned by the mercantile customs and the value judgments which were general in fifteenth-century Venice.

It seems to me that in "Public Protection and Private Enterprise," the second of the three chapters which constitute the text of this monograph,

Professor Lane has realized these objectives in the most laudable fashion. Impressive factual evidence combined with careful reasoning yield a clear and convincing exposition of the division of entrepreneurial functions (in foreign trade) between the state and individual Venetian merchants. Working through the publicly-auctioned contracts with galley masters, the Senate established a monopoly of ocean-going transportation. At the same time it prevented the monopolization of the use of transport, since any merchant could ship the kinds and quantities of goods he chose to export or import—within the limits of the tonnage of bottoms made available by the Senate. The sailings of single, unarmed ships were not infrequent; but the great galleys carried the bulk of trade between Venice and the Levant, Flanders, and England. They sailed in convoy under an admiral appointed by the Senate and the state fixed freight rates.

The conclusion is reached that in an age which required expensive protection of maritime trade less state intervention would have promoted the formation of exclusive joint-stock companies and, consequently, the individual trader would have enjoyed less freedom of opportunity than under the regulated voyages of the galleys. "To compare the Venetian Senate to the board of directors of a joint-stock company, as has been done, completely misrepresents the amount of freedom left to the individual merchant." Of course, freedom is relative to time and place: in fifteenth-century Venice virtually all exporters and importers belonged to the nobility. Andrea Barbarigo's family "stemmed from the old Venetian nobility and had been prominent in Crete."

Andrea was the "restorer of his family's fortunes." His father, the commander of a fleet of galleys returning from Alexandria in the winter of 1417, was publicly disgraced and heavily fined for violating long-established rules of navigation and for deserting a shipwreck. Deprived of an inheritance by his father's misdeeds, Andrea, at nineteen, began his business career with some 200 ducats. At his death he left an estate of less than 15,000 ducats, "a substantial amount although not a big fortune for that day." Cosimo de' Medici and his brother had fifteen times as much in 1440. The sons and grandsons of Andrea further augmented the family fortune, but by the end of the century, the Barbarigos were less merchants than landowners, *rentiers*, and officeholders.

Andrea Barbarigo was an independent operator; his business was an individual proprietorship. In contrast, the leading mercantile firms of Venice were family partnerships (*fraterne*). Mr. Lane finds that the development of the fifteenth- and sixteenth-century *fraterna* paralleled modern corporate organization in certain respects. Thus, the family firm "acquired subsidiary partnerships" and, "when it embraced the members of one of the richer families, became a sort of combination of investment trust and holding company." Interesting case studies are presented here as well as in the author's recent article on "Family Partnerships and Joint Ventures." Although the statements are hedged, the reader may still be reluctant to accept the accuracy if not the usefulness of the analogies. When a partnership ventures some of its funds in another partnership, the resultant enterprise, in structure

at least, might best be compared with the modern syndicate of the type familiar in the field of investment banking.

Barbarigo's foreign business was done by consigning goods to agents; he made no use of the *commenda* partnership, or profit-sharing arrangement once general throughout the Mediterranean. What brought about the discarding of the *commenda* in favor of the commission agent? "Two reasons of enduring influence are apparent, one having to do with the law, the other with accounting. Profit-sharing smacked of a partnership, in this case a partnership with limited liability for one of the partners, and Venetian courts and legislators did not approve of partnerships with sleeping partners of limited liability." The legal explanation seems sound: it was easier to task an agent than to bring into court an individual whom the law might regard as a mere partner of the plaintiff.

The accounting explanation at best appears to be incomplete. According to the author, "if a merchant resident at Venice shipped regularly to a merchant resident abroad, who sold for him, there would be plenty of room for argument over the real value of the wares shipped, and, of course, the amount of profit to be shared would depend on what was reckoned to be the original value of the wares." Substitute "amount of commission to be paid" for "amount of profit to be shared" and the statement should be equally valid. It is not pointed out that profit-sharing entails loss when there are no profits to be shared. A prolonged period of falling prices would have endangered profits and furnished a strong incentive for switching to the commission basis.

Perhaps too much space has been given to criticizing what constitutes a small part of this chapter on "Business Associates and Opportunities." Its real contribution lies in the fullness with which it describes and appraises the merchant's relations with agents, relatives, and friends in Syria and Palestine, Spain, Flanders, and England. Barbarigo was one of the sedentary merchants "discovered" by Professor Gras, and his problem of business administration was to a considerable degree one of selecting reliable associates and agents in foreign markets. If he "utilized extensively ties of affection, both those based on personal friendship and those presumed to rest on family connections," nevertheless he found occasions to sever relations with an incompetent agent and to sue in the Giudici di Petizion an unfaithful representative. Within the limits of the restraints imposed by Venetian institutions he was resourceful, adaptable to changing circumstances, and bold. Undeterred by losses in many ventures, he persevered until gains greatly overbalanced his losses. Like Antonio, Andrea Barbarigo might have said,

My ventures are not in one bottom trusted,
Nor to one place; nor is my whole estate
Upon the fortunes of this present year:
Therefore my merchandise makes me not sad.

Four critical notes take up the last third of the book. The longest of these deals with accounting methods. Professor Lane presents data which challenge several accepted notions on the development of double entry and the use of journal, ledger, and trial balance. Sieveking claimed that double entry was

imperfectly understood at Venice around 1410, but a reëxamination of mercantile account books refutes this opinion. Too often writers have jumped at the conclusion that the failure to use certain methods meant that they were unknown, whereas indifference and inefficiency may account for their non-use. For instance, "there is no reason to believe that trial balances of any kind were compiled frequently." Asset accounting appeared less important to Barbarigo and his contemporaries than to the modern merchant or corporation. Although the merchants of Venice were profit-minded and eager to make each venture a source of gain, neither the laws nor the customs of the land made it necessary or even useful for the merchant to know his net worth from month to month.

ROBERT S. SMITH

Duke University

The Fall of the Old Colonial System. By ROBERT LIVINGSTON SCHUYLER. (New York: Oxford Univ. Press. 1945. Pp. vii, 344. \$3.00.)

In April, 1830, the *Westminster Review* summarily described the British colonies as "impediments to commerce, drawbacks on prosperity, pumps for extracting the property of the many for the benefit of the few." This is the voice of British liberalism which gradually transformed the political and economic organization of the United Kingdom and revolutionized the relationship of the metropolis to the imperial colonies. The impact of this movement on certain aspects of the British Empire from 1770 to 1870 is the subject of Professor Schuyler's new book. His approach is through an exposition of anti-imperialist reasoning from Josiah Tucker and Adam Smith to the Manchester School and Gladstone's first cabinet, and the disintegration of the Old Colonial System as reflected in the changes wrought in the complex structure of commercial regulations and imperial defense. It took about a century for economic liberalism to be conceived, crystallize and become dominant. Indeed, the 1860's which witnessed the climax of liberal anti-imperialism also marked the incubation and birth of a reactionary trend that shortly was to grow into a new and lusty appetite for Empire.

To be sure, as Professor Schuyler sets forth, Little Englandism was confined to rather small groups of statesmen, intellectuals, and business men. Even in the 1860's, majority opinion toward the colonies was one of apathy resting on an inert "habit of Empire." It did not clamor for dismemberment of the imperial connection. Although the policy of the metropolitan government—particularly in withdrawing imperial garrisons from the settlement colonies—elicited the colonial complaint that Great Britain was casting its dependencies adrift, no member of the government ever proposed outright a separationist program.

In some ways, the author observes, liberalism encouraged the subsequent change from Empire to Commonwealth as well as a revival of interest in colonial acquisitions. "Free trade, it must be admitted, came near to dissolving the British Empire. But it also made possible in time the conception of a new type of empire, in which colonies were to be viewed rather as allies and

partners . . . than as dependencies" (p. 165). Also, "by diminishing the burdens of empire, of which the anti-imperialists had always made so much, the government, whatever motives may be ascribed to it, removed the principal argument against maintaining the Empire. In doing so, it helped to pave the way for the rise of a new imperialism" (p. 233).

Professor Schuyler unearthed few new facts for his book and offers no startling interpretations. The critically-minded reviewer will find it hard to satisfy his passion for controversy. This is a scholarly and eminently readable book. It is admirably balanced and, judged on the basis of the restricted scope set by the author, it is beyond cavil. Since the book refrains from following up the ramifications of complicated imperial policies and their gradual revision and liquidation, the main strands of reformist thought stand out more conspicuously and the whole shift in imperialist trends becomes clearer to readers of this book than it appeared to contemporary observers. The book should prove very useful to students.

K. E. KNORR

Stanford University

National Economies

The Structure of Soviet Wages—A Study in Socialist Economy. By ABRAM BERGSON. (Cambridge: Harvard Univ. Press. 1944. Pp. xi, 255, \$3.50.)

According to the popular view, socialism presupposes equality of reward. This was, however, certainly not the opinion of Marx. In his criticism of the so-called Gotha program Marx definitely stated that inequality of income would persist in a socialist state, at least in the transitional period. Dr. Bergson confirms this interpretation of Marx by presenting—in the introductory chapter—a brief but lucid description of the essential features of a socialist economy.

In a very thorough systematic analysis which follows Dr. Bergson shows that inequality of income in Soviet Russia resembles to an amazing degree the situation in a capitalist economy. The samples chosen seem to be sufficiently representative at least to demonstrate the great variation in income.

The study deals mainly with the wage statistics for 1928 and 1934 although the trend in the Soviet wage policy up to 1937 is taken into consideration.

The result is striking: the inequality of wages in U.S.S.R. and capitalist countries reveals a uniform pattern. The reason for this similarity is that a socialist administration also must seek to extract as high a value product as possible from resources at its command; in other words, it must try to attain an optimum allocation of given resources (p. 9).

The socialist propaganda was geared to the idea of an absolute abundance and regarded, therefore, equality of reward not only as a prime revolutionary objective, but also as obtainable with certainty once the institutional setup of capitalism was eliminated. Practical experience soon taught the painful lesson of how wrong this interpretation of the unquestionably unprecedented

increase in productivity of modern capitalism has been. After the privation of the various Five-Year Plans and all the hardship of the war, the Russians have fully realized that you cannot have guns and butter at the same time, that the relative scarcity of resources remains the strait-jacket also for the socialist state. Just as with the entrepreneurs in a capitalist economy, the Soviet administrators had no other choice than to differentiate wages according to the contributions of different types of work.

Of particular interest in this respect is Dr. Bergson's comparison of wage variation in the United States in 1904 with that in the Soviet Union in 1928 in special industries, namely, in the glassware industries. These years and these industries have been chosen because the technical conditions of production have been essentially the same in both countries. The inequality in the U.S.S.R. is surprisingly similar to that in the United States. Since 1928 the inequality has considerably increased, particularly under the influence of the Stakhonov movement. The similarity remains great even when allowances are made for all kinds of variations in real wages by special rationing and other government privileges.

The book is an extremely valuable contribution to the ever-growing literature on Soviet Russia. With the well-trained eye of an economic theorist the author during his short stay in Russia has seen more than many observers and writers who have spent many years there. He knows the language and is familiar with the original Russian literature. In sovereign command of the analytical tools of modern economics, as well as of advanced statistical technique, the author was able to present his analysis in the least biased and most enlightening way. The Marshallian economics has certainly a wide range of validity also within a socialist economy, and Dr. Bergson has understood how to draw from it the proper conclusions with regard to fundamental issues of the Soviet economy. His deeper insight in the functioning of a socialist economy has prevented him from distorting the analysis by mixing up pure economic relations with the sociological framework of a socialist economy, as has been so frequently the case in the popular literature. We are in great need of more such monographs on Russia as that of Dr. Bergson to get a more adequate picture of the functioning, and of the accomplishments, as well as limitations, of Soviet Russia.

EUGEN ALTSCHUL

U. S. Tariff Commission

Economic Systems; Post-War Planning

A Price for Peace—The New Europe and World Markets. By ANTONÍN BASCH.
Foreword by JAMES T. SHOTWELL. (New York: Columbia Univ. Press.
1945. Pp. xii, 209. \$2.50.)

Published before San Francisco and Potsdam laid down the great lines of official post-war policies, sponsored by the Carnegie Endowment for International Peace, prefaced by the valiant writer for realistic and constructive

pacifism, this book carries a message. Concisely stated in the programmatic title it proclaims: Europe ought to be given her opportunity and share in world trade, if the peace is to be durable. Europe in this program means continental Europe, where the peoples after the war will have to start under auspices and conditions different from those of Great Britain and Russia. Out of the ashes, out of the ravages and destructions, a new Europe emerges on the Continent. Security of the world and the well-being of mankind require that this region be swiftly, fully, and planfully integrated in a well-functioning world economy. The New Europe could certainly not be excluded and left to its own severely impaired powers of resilience without preventing the whole world from regaining economic equilibrium.

The European continent—at the pre-war average—absorbed 38 per cent of all world imports and contributed 37 per cent to the total exports of the world; excluding intracontinental European trade, the European continent used to import 57.8 per cent of the total supplies of all other continents plus Great Britain plus Russia and to sell to these countries 44 per cent of all its own exports. Comprising before the war nine highly industrialized countries, the European continent offered the greatest market for raw material and food-stuffs and was seller, as well as buyer, of the largest quotas of all marketed manufactured articles. There is not one exporting or importing area where the whole economy would not be dislocated and forced into grave adjustment trouble should continental Europe not regain—nay, improve—her place in world economics. Failing this, the world could again be driven to the brink of war and catastrophe.

Professor Basch adduces an imposing array of striking facts and figures in corroboration of the plausibility of his vision of a post-war world economy, where the crossroads between universal prosperity and universal misery, between peace and war, will be marked by a signpost pointing in one direction at the integration; in the other, at the exclusion of continental Europe. But, while building up this vision, Basch is no starry-eyed visionary. His prospects are clouded with the awareness of the difficulties and obstacles, which ought to be overcome, and of the sacrifices and self-denying policies which governments and peoples ought to be ready to accept in order to achieve a well-organized, collaborative world economy including post-war continental Europe. Basch does not ignore the fact that not all peoples, not even the peoples of continental Europe, whose very survival is directly involved may now be prepared to adjust their economic policies, domestic and foreign, to this challenge of the future. And it is precisely this painful adjustment, the deliberate choice of long-run policies with all the sacrifices they may entail, in the place of more facile short-run advantages and shortsighted national policies, that Professor Basch, in his message, proclaims as the "price for peace."

The Atlantic Charter, the master agreement of 1942 and, more recently, the presidential proclamation terminating Lend-Lease are indicative of the way the United Nations are pledged to go together to the goal of economic reconstruction; it is the way of multilateral agreements and equalitarian treatment tending toward liberation of trade and removal of trade barriers. But, for continental Europe to be able to participate materially and to benefit from such

a policy of world trade liberation and expansion, emergency measures ought to be taken during a transition period of several years, in order to restore equipment and productivity of the damaged areas.

Dr. Basch suggests that this primary task of rehabilitation should be planfully oriented on the future inclusion of the readjusted countries in a collaborative system of world economy and division of labor following the principle of comparative advantage. And it is here, in his practical advice, not in his postulated aim, where Basch presumably will encounter opposition, disappointment and, eventually, even the surprise of finding the proclaimed ends achieved through other ways and means. It will probably be hard enough to reconcile national economic policies with the principles of equalitarian multilateral trade; the problems of Great Britain and her imperial preference and of the aloofness of Russia and her newly-won sphere of influence against the traditional methods of international relations ought to be brought in line with the great concepts of an expanding world economy.

Tendencies toward bilateral arrangements, regional preference and competing *blocs* will have to be overcome before the great machinery of concerted economic action aiming at an expanding world economy—the pacts concerning raw material and foodstuffs, lowering and abolition of trade barriers, monetary stabilization and the International Bank for Reconstruction and Development—start their beneficial work of trade expansion and integration. The World Security Organization provides an Economic and Social Committee with supervisory and regulative functions, but it would seem to be doubtful whether even such a supreme instance would be able to live up to the requirements as stated by Basch as essential in the task of economic reconstruction. Universal planning in the international sphere and domestic planning, both guided by the principle of comparative advantage, as advocated by Basch, may appear to be a directive rather for creation of a new economic world than for reconstructing a world economy out of more or less adequate, already existing elements. Lack of inexorable logic is certainly not among the failings of Professor Basch's program. To a world hectically industrialized in every corner of the globe—the book cites astonishing developments on this score—Basch proclaims: "Old plants and old and outworn economic enterprises—and even new industries with high production costs—should be scrapped along with old and outworn ways of thinking" (p. 90). But only a doctrinaire—and Dr. Basch is no doctrinaire—could assume any fixed and inflexible rule by which to measure relative advantages and disadvantages, which are neither static nor of a purely economic nature, expressible in costs. The industrialization of former agrarian countries, the agrarianization of predominantly industrial economies—Dr. Basch gives the facts—may from the standpoint of mere costs be wasteful and irrational, but they certainly are not without good reason. And the planners, who according to Dr. Basch should be entitled to determine the structural set-up of the economic world, which under our eyes has so dynamically changed its structure of production, may well be faced with a task of almost unbearable responsibility.

"The first thing—and this should be done immediately—is to make an itemized census of the world's manufacturing capacity by countries, showing the

development of individual industries during the last decade and their potential market. Special committees for each industry, established as an international organization, should examine the situation in all possible details" (p. 90). Granting that there is some preparatory work of this kind already done—for example, the U. S. Census and studies in the Foreign Economic Administration—could the dynamic economic development of the world wait for these committees to take stock and issue their plans? And would these plans correspond to more than a momentary phase, thus barring further progress?

The planners, moreover, would have to choose between different schools of thought regarding the impact of industrialization on the expansion of international trade. Some, such as Professor Eugene Staley and Louis Bean, expect that industrial diversification intensifies foreign trade and advocate that industrially less developed regions and backward countries be assisted in their endeavors to industrialize and thus develop not only a higher standard of living, but also more receptive markets. Others, however—Professor Basch quotes the interesting findings of A. J. Brown—are not so sure of such an effect in the long run. There are similar problems to solve with regard to agriculture, notably in the European southeast.

What lead are the global planners to follow? It would seem as if the realistic approach intended by Basch has overlooked one very realistic, though not dirigible and not measurable force of resilience and adjustment, namely, the *élan vital* of millions of skillful, enterprising, intelligent individuals, who may be expected to strive for survival according to their own lights and determination and following the selective decisions of the market, where they would find guidance even in the task of assessing comparative advantages and disadvantages, at least in all fields of production and trade which will not fall into the widening sector of direct governmental regulations.

The lot of world planners would certainly not be enviable. The world is full of contradictions. A new, the "second industrial revolution," has radically changed all economic structures. The war and revolutions have changed the social structure in wide parts of the world, including continental Europe. New economic and social philosophies gain sway over half of continental Europe and of the British Isles. The tendency toward industrialization is partly—for obvious political reasons—offset by the imposed reductions of industrial activities in Germany, regardless of comparative advantages. Still the fact remains that continental Europe, for her own good and for the peace of the world, ought to find her place in a well-organized world economy. Assuming that the urgently needed emergency measures succeed in bringing about rehabilitation of productive capacities in the afflicted areas of the world, and allowing for collective activities within a wide sector of economics, a machinery is already prepared—and a universal intention is agreed upon—to liberate trade and to release the dynamic forces of individual economic enterprise, even in stricken continental Europe, the last place in the world where the human urge and force of resilience should be completely superseded by the rulings of a planning board, be it ever so omniscient and wise.

Dr. Basch has contributed a very meritorious study to the literature which, in its entirety, adds up to an organized public opinion and clear vision con-

cerning the future of a world bent upon the preservation of civilization and peace. Isolationists should read it in order to abandon their easy belief in the possibility of severing interdependencies which are organic, and illusionists and perfectionists should read it in order to get a glimpse of the complexities of a task which can not be done merely with good intentions and which, moreover, can never, even with the greatest exertions, yield fully satisfactory results in the short run.

ADOLPH B. DRUCKER

The American University

Collected Works. Vol. XXIII, 1918-1919. By V. I. LENIN. Edited by A. TRACHTENBERG. (New York: Internat. Publishers. 1945. Pp. 539. \$3.50.)

The volume before us contains Lenin's writings and speeches for the period May, 1918, to February, 1919. With the exception of "The Proletarian Revolution and the Renegade Kautsky,"¹ which first appeared in pamphlet form, the items are short and consist of speeches² and letters to official and unofficial bodies, together with a number of contributions to Pravda. While Lenin addresses himself throughout to pressing practical problems of the day, the volume, nevertheless, throws light on a number of issues which cluster around the interpretation of the Russian revolution.

One thing emerges clearly. The Bolshevik revolution was begun as the first stage of a world revolution of which the German phase was conceived to be of strategic importance. "Our revolution was begun as a general revolution."³ "Final victory is possible only on a world scale."⁴ The "complete triumph of the Socialist revolution is inconceivable in one country alone and demands the most active collaboration at least of several advanced countries, among whose number Russia cannot be counted."⁵ From "the stand-point of the international, of the world revolution . . . the chief link . . . is Germany. . . the German revolution is already ripe and on it the success of the world revolution will most of all depend."⁶

On October 3, 1918, Lenin observes, "The crisis in Germany has only begun.⁷ It will inevitably end in the transfer of political power to the German proletariat. . . the Bolsheviks were right in basing their whole tactics on the support of a world workers' revolution."⁸ Kautsky, in fact, upbraids the Bolsheviks for having "staked everything on one card, on a general European revolution" at a "definite date."⁹ Lenin's response throws light on the follow-

¹ Pp. 347-436.

² In some cases, newspaper accounts of speeches.

³ Aug. 23, 1918; p. 206. See also pp. 27, 48, 307, 405-07.

⁴ May 14, 1918; p. 22.

⁵ Nov. 18, 1918; p. 275. See also pp. 126, 206-07.

⁶ Oct. 22, 1918; p. 251. See also pp. 439, 489.

⁷ "Within ten days . . . the German monarchy was overthrown." Ed. note, p. 403 n.

⁸ P. 228.

⁹ P. 401. *Italics mine.*

ing two issues: (1) the alleged determinism of Marxian theory and (2) the alleged non-Marxian character of the Bolshevik revolution.

Lenin's assertion that Bolshevik tactics were "based on the expectation of a European revolution in the more or less early future, but not at a definite date"¹⁰ is in itself of no particular interest. The world revolution did not transpire in the "more or less early future." What is of interest is Lenin's position that to predict a definite date for a revolution is, in principle, impossible. Why? Because there are no "historical laws of revolution. . . . laws only apply to the typical, to what Marx once termed the 'ideal,' meaning average, typical capitalism."¹¹

Lenin is correct as to Marx's view of the relation between his theory and historical prediction. As Lenin indicates, the reference of Marx's "laws of motion of capitalism" is a theoretical model of an ideal, typical capitalism, and not the historical scene. For the purpose of historical prevision, *i.e.*, prediction in terms of time and place, the model needs to be adapted to the peculiarities of the given historical configuration; and even then, what emerges is a probability judgment. Critics of Karl Marx have mistaken revolutionary rhetoric for a doctrinal and methodological determinism.

As for the alleged anti-Marxian character of the Bolshevik revolution, Lenin has the following to say: "Long before the war, all Marxists, all Socialists, were agreed that a European war would create a revolutionary situation. Kautsky himself, before he became a renegade, clearly and definitely admitted this—in 1902 (in his *Social Revolution*) and in 1909 (in his *Road to Power*). It was also admitted in the name of the entire Second International in the Basle Manifesto."¹² Lenin might have added the great authority of Engels in support of his position that the conception that a world war would breed world revolution¹³ had come to be a Marxist tenet.

"The experience of every revolution that has hitherto occurred in Europe offers striking corroboration of the fact that revolution is inevitably doomed if the *peasants* do not throw off the domination of the kulaks."¹⁴ Had Lenin not been making a speech to the delegates of the poor peasants, he might have said, "If the *revolution* does not throw off the domination of the kulaks"—a domination based in considerable part on the circumstance that the kulaks were the main source of the surplus grain for the feeding of the urban population. The kulaks' propensity to hoard the surplus led, beginning with the early summer of 1918, to the organization of class warfare in the village under the slogan "Poor peasants, unite!"¹⁵—against the kulaks.

In this way, according to Lenin, "the October Revolution of the cities became a real October Revolution in the countryside only in the summer and autumn of 1918."¹⁶ Toward the end of 1918, he asserted that the latter was

¹⁰ P. 402.

¹¹ P. 356.

¹² Pp. 402-3.

¹³ See *e.g.*, pp. 119-20 for quotation from Engels to this effect.

¹⁴ P. 293. *Italics mine.*

¹⁵ June 4, 1918; p. 273.

¹⁶ Nov. 6, 1918; p. 264.

possessed of a "significance . . . incomparably deeper and greater" than that of the October revolution in the city.¹⁷ Lenin overestimated the significance of his rural revolution because he underestimated the staying power of the kulaks. Their surplus grain might be requisitioned by force, but force does not avail for the production of surplus grain as long as production is in private hands. Confronted by serious famine in 1921, Lenin was forced to inaugurate the N. E. P. of which the kulaks were the chief beneficiaries.

It may be that their very success contributed to the kulaks' premature and violent liquidation. At any rate, while Lenin remarks, "We shall have to fight for the social cultivation of the land," the following indicates that he did not envisage so rapid and forcible a collectivization of agriculture as ultimately took place. "We fully realize that such vast upheavals in the lives of tens of millions of people as the transition from small individual peasant farming to the social cultivation of the land, affecting as they do the most profound roots of life and habits, can be accomplished only by prolonged effort, and can in general be accomplished only when necessity compels people to reshape their whole lives."¹⁸

Lenin also expresses himself at length on the highly controverted issue of the dictatorship of the proletariat. But that is too complicated a matter for summing up within the limits of a short review.

LEO ROGIN

*University of California
Berkeley*

Economic Democracy and Private Enterprise. By MICHAEL O'SHAUGHNESSY.
(New York: Harper, 1945. Pp. x, 118. \$2.00.)

The jacket of this book carries the endorsements of Secretary Henry A. Wallace and Philip Murray. Such endorsements must have rested upon its equalitarian social and political sentiments, certainly not upon its meager economic or political analysis. Apparently directed primarily at the lay reader, the book is, by and large, based on the economics of the heart, not of the head.

The economic thesis (Chaps. I and II) is simple. During the war, we attained full employment "for the first time in our history" by tremendous government spending. To maintain full employment in the post-war period, despite the curtailment of wartime government spending, it will be necessary to raise the minimum income per family to \$2,800 per year. Family units with incomes of less than \$1,500 would be raised to this level by school lunches, stamp plans, housing assistance and medical care through income taxes on those with incomes greater than \$5,000 and on corporations. This would "create a prosperity" enabling those in the \$1,500-\$3,000 class to raise their own standards to the \$2,800 minimum. Those contributing the taxes would suffer no deterioration in their financial position "and their gain in stability would more than compensate for their temporary sacrifice." Eventu-

¹⁷ Dec. 14, 1918; p. 447.

¹⁸ Pp. 448, 449.

ally, investment of savings for production purposes would largely come from those with incomes below \$5,000. "Social security taxes, health and educational grants in aid and all forms of Federal paternalism would eventually be unnecessary" if the \$2,800 minimum were maintained.

Even if one admits that, for the most part, industrial leaders have emphasized wage rates as a cost almost to the exclusion of wage rates as purchasing power, O'Shaughnessy goes to the opposite extreme. "The higher the wage level, within reason, the greater is purchasing power and consequently consumption, and the higher consumption the higher employment." The relation of wage rates to labor productivity, costs, prices and profits is completely ignored. It is perhaps significant that the author always states his minimum goal in monetary terms, but nowhere comes to grips with the *real-income* problem, merely piously inviting the nation's industrial leaders to double the 1942 production of civilian goods for the same total profit earned in that year. So foreign is productivity to his thinking that he fails to invoke what is perhaps the soundest argument in favor of raising the minimum standards of health, nutrition, housing, and education for our lower-income groups. This argument is that such measures would raise human productivity and foster that mobility of our human resources so necessary to maximize our national real income. Only upon such a basis, by which the product available for redistribution could be steadily increased, could his drastic leveling process have any degree of permanence whatsoever, particularly without continuing federal "paternalism" which he himself wishes to eliminate.

Like so many "liberals" of the Christian-humanist (or socialist) persuasion, O'Shaughnessy finds something ethically distasteful about "competition" and "profits." He criticizes our present economic system *not* because it fails to attain the "competitive" ideal, but because competition (particularly on a price basis) is itself "socially destructive," creating monopoly and concentration of power and wealth. For competition, he would substitute (consumer) coöperation, "production for use and secondarily but definitely for profit," and "a fifty-fifty attitude as between self-interest and public welfare." Beyond such confused and vague ethical notions, he fails to support his view that "there are better means" to insure the "passing on to the consumer the gains from technological advance" than through price competition. Strangely enough, he later fully quotes with approval the patron saint of this economic philosophy, Henry Ford.

After this highly inadequate discussion of fiscal and economic matters, O'Shaughnessy spends the remaining three-quarters of the volume in discussing the political means of implementing his economic program. Actually, there is no necessary connection between the two parts, the latter being a partisan but, on the whole, competent criticism of pressure-group control of Congress, particularly during the war just ended. The solution which he offers for this vital problem is "functional democracy." He proposes the creation of a Supreme Council of Industries and Professions (S.C.I.P.). Delegates, chosen by democratic procedure, would represent organizations of owners and managers, workers, and consumers in each major industrial or vocational

group or subgroup of the national economy. The S.C.I.P. would have official status as an integral part of the government, acting as an advisory body to the Congress, executive departments and various commissions. This Council could (1) pass resolutions, by majority vote, expressing the opinion and advice of the delegates on current problems; and (2) reach agreements—for example, between employers and employees with the assent of consumers' delegates—valid only if then incorporated into acts of Congress. Congress could then "recover its composure as a deliberative body," considering proposals from S.C.I.P. "in an atmosphere of calm, free from outside pressure, and devote its time to acting conclusively on matters of broad policy." Harmony between branches of government and between classes would thereby be restored and the pressure-group problem would be resolved. And a "just balance" among production and consumption, employment, prices, wages and profits would be attained to form the basis of legislation.

O'Shaughnessy's proposal deserves careful consideration, since it does conform with the tendency of certain organized groups of citizens to think, lobby and vote more nearly as "producers" than as "consumers." But what the author fails to recognize is that our organized pressure groups actually represent primarily the "aristocracies" of agriculture, labor and industry. For example, the three million farm families—the half largely outside of commercial agriculture—are not represented by any articulate group. The same is true for millions of unskilled, unorganized workers. In their present state of education, physical health and mental vigor, they cannot be expected to organize politically nor is it feasible successfully to impose organization upon them from the top down. Nevertheless, many of them can and do vote and participate in the existing political process. Functional representation would, therefore, shift the balance of power still more strongly in favor of the "aristocracies"—to the detriment of the very groups which O'Shaughnessy wants most to strengthen—than does present more broadly-based Congressional representation.

Furthermore, it is politically dangerous to encourage and extend producer-mindedness by legalizing it. Would not economic positions tend to become less, not more reconcilable? The one-third representation of consumer interests would very probably be "window-dressing," if past experience is any guide. By rejecting competition *in toto*, O'Shaughnessy would transfer price and wage making almost wholly into the political arena. The S.C.I.P. is strangely reminiscent of the National Council of Corporations of Fascist Italy. To suggest that such a large and unwieldy organization—however "democratically" organized—could lighten the strong hand of the state is little short of naïve. In the reviewer's opinion, creating a more intelligent electorate, broadening the franchise, and Congressional reform—even marked revisions of our Constitution—should be attempted before we resign ourselves to the neo-medieval "status" society which appears to be the author's ideal.

This is not a good book in any scholarly sense. It is impassioned, partisan, replete with repetitive *clichés*, and inextricably confused as between ends and means. The reviewer nevertheless would recommend it particularly to economists writing in the fields of employment and fiscal policy as an

example of how not to write what some of them are, in fact, writing. Economists cannot, in times like these, avoid questions of public policy, political philosophy and social "values." But they can, at least, try to separate assertion and analysis. They can make their fundamental assumptions concerning the institutional framework and the ends of society as explicit as possible, in order that critical attention may be focused on the crucial issues. And they can show far more humility, and far less acceptance of theoretical hypotheses as proven "facts." Only thus can they avoid envelopment by the ceaseless clash of the ideologies and utopias.

WILLIAM H. NICHOLLS

University of Chicago

Citizens for a New World. Edited by ERLING M. HUNT. (Washington: Nat. Council. for the Soc. Stud. 1944. Pp. 186. \$2.00.)

For its Fourteenth Yearbook, the National Council for the Social Studies has brought together eight papers bearing on the need of an organized world society and the responsibilities of citizenship in that society. "No nation," in the words of the Preface, "can make an independent choice between peace and war, or by its own efforts guarantee its prosperity against depression, or its democracy against the menace of fascism." Hence the purpose of the symposium is "to describe needs and a range of proposals, and aid citizens in making intelligent choices as they help determine our policies in rebuilding an orderly society." Notwithstanding the sponsorship of the volume by leaders of educational foundations and peace organizations, the promise of the Preface is not fulfilled in the material presented.

Written in 1944, the volume opens with a review of the case for planning the peace during the war by Professor Clyde Eagleton. He shows why only a strong international organization can be expected to cope with the problems of restoring order, maintaining security, and preventing the imbalances that lead to war. The same theme is developed by Professor Linden A. Mander in his paper on "The Interdependence of Nations and Individuals," and in Miss Esther Caukin Brunauer's chapter on "The Stake of the United States in International Organization."

Under the heading, "Plans for International Organization," Professor Denna F. Fleming traces our negative contributions in respect to the League of Nations, the World Court, and the episodes of Manchuria, Ethiopia, and Munich. He is strongly opposed to the treaty veto power of the Senate. In his words, "The stronghold of a constantly recruited battalion of death upon our foreign affairs must be ended." When the competent representatives of the participating nations have finally reached an international agreement after much compromise and discussion, Professor Fleming regards it absurd that any one parliament should then proceed to "perfect each treaty for all time to come against all imaginable hypothetical dangers and against all the frailties of future human beings."

The subject of "Education for a New World Order" is covered by Professor Walter M. Kotschnig. He presents the dilemma of avoiding the use of

education as a political weapon of dictatorship, and at the same time implementing the positive function of education as a preparation for citizenship in a world order. Professor Kotschnig emphasizes the key position of the secondary schools in international education. He would put greater emphasis on foreign languages; and in all subjects, "even arithmetic," there should be a judicious choice of examples and problems designed to help create an international outlook. He would not interfere with the cultural integrity of the individual nation; and he wants no "world curriculum." He does, however, recommend an international office of education available to appraise educational systems of individual countries and to offer aid where needed.

Reference to the importance of economic coöperation in building a world order is encountered in all of the papers. Only one chapter, however, is devoted specifically to treatment of the economic problems that must be resolved at the international level. That one is by Miss Carol Riegelman, under the title, "Liquidating the War: Economic and Social Rehabilitation." Her approach is not that of the economic analyst. Miss Riegelman is content to list the general welfare aims of economic coöperation. Thus, we are admonished that it will be necessary to find jobs for all who need them; to find homes for uprooted populations; to advance backward areas; to make farming profitable; to establish freedom from want. There is no effort to point out the conflict of issues that must be resolved in such basic fields, for example, as monetary stabilization; balancing imports and exports; cartels and commodity quotas; accelerating the international flow of investment funds; the exchange of goods and services between privately managed and state-controlled economies. Apparently Miss Riegelman's faith in international conferences remains strong. She closes her chapter with this peroration on the International Labor Conference held in Philadelphia in April, 1944: "The Philadelphia Conference debates may thus give a new impetus to international planning for social and economic reconstruction. The Conference may mark the opening of a new phase in the struggle to achieve a better post-war world."

An exception may be noted to the generally platitudinous tone of the volume. It is in the shortest of the chapters—a 5-page paper on "Problems of International Health," in which C. E. A. Winslow presents a check list of the essential health services in which international effort must be concentrated for protection against the spread of diseases and for the raising of health standards among nations.

It is difficult to ascertain for what type of reader the volume was designed. Two editions are mentioned in the Foreword: "one for the general public; one for teachers of history, international relations, and related fields of the social studies, and for other educators concerned with the planning of the school curriculum." But only one edition has actually been issued—apparently the one intended for the general public, with an appendix chapter containing the outline prepared by Professor Hilda M. Watters for a secondary school curriculum in international relations. The volume is likely to prove most useful to the teacher who does his classroom work in other fields but is interested

in obtaining a general knowledge of the ground covered by the field of international education.

A. D. H. KAPLAN

Washington, D.C.

National Budgets for Full Employment. Pamph. ser. nos. 43-44. (Washington: Nat. Planning Assoc. 1945. Pp. viii, 96, 50c.)

This study investigates the relationships between public expenditure, private investment and consumption, implied by the employment of 60 million persons in the United States in the year 1950. Assuming an annual increase in output per worker of 2 per cent during the current decade, and granted that the work week is not reduced below forty hours, the authors calculate that this labor force is capable of producing in 1950 a gross national product of around 170 billion dollars (1941 prices). They further calculate that, even if taxes are reduced, if the Social Security fund fails to accumulate, and if less corporate profits are placed to reserve than of late, such a level of gross national product implies—on the basis of past relationships—a deflationary gap of the order of 8 to 9 billion dollars. This pessimistic conclusion, with which few would quarrel, leads the authors to consider (1) deficit financing, (2) increased private investment, and (3) increased consumption as alternative means of achieving full employment. No elaborate consideration is given to the strategy required by different lines of attack, but the problem is clearly posed.

The composition of full employment output and the associated distribution of the labor force are treated only incidentally. For example, one may question whether as many as 15 million persons can ever again be employed in manufacturing, even under assumption (2). However that may be, the study does much to document the conclusion "that past relationships will not bring nor maintain . . . full employment," and "that changes in our past arrangements are therefore necessary." The formulation of specific measures is left for further study, though it is admitted that this is a task which brooks but brief delay. In fine, the monograph is clearly written and provides an excellent introduction in concrete terms to national income and national product accounting, although the theoretical treatment is necessarily sketchy.

HAROLD BARGER

Washington, D.C.

The Second Chance: America and The Peace. Edited by JOHN B. WHITTON. (Princeton: Princeton Univ. Press. 1944. Pp. vi, 235. \$2.50.)

The little volume contains seven essays on the structure of the peace, contributed by members of the Princeton faculty and the Princeton Group for the Study of Post-war International Problems. Papers on the political, legal, economic and philosophical aspects of post-war relations are included. While the treatment is rather sketchy, the chapters move along swiftly and make for stimulating reading.

Most interesting to the reviewer was Professor Niemeyer's chapter on

"World Order and the Great Powers," where it is argued persuasively that post-war peace will depend not on legal procedure but on the "art of adjustment" as practiced among the great powers. Events have somewhat overtaken Professor Corwin's plea that constitutional practice does not require a two-thirds Senate majority for ratification of a peace organization, but the argument may regain importance at some later time.

Professor Graham's chapter on "Economics and Peace" is the only one dealing with the economic aspects of the problem. The lesson of the last century, he argues correctly, is that we cannot get peace through liberal economic policies, but that we may get liberal economic policies through peace. The attainment of peace, first of all, will require full employment in the major countries, a condition upon which international trade *per se* is thought to have little bearing. Further requirements are free access to raw materials for all nations on equal terms, checking of international monopolies, stability in the tariff structure and an orderly international monetary system. Voluntary stabilization of exchange rates and price levels is recommended, with monetary standards being linked to goods on a stable basis, in short, application of Professor Graham's commodity money scheme to the international sphere.

RICHARD A. MUSGRAVE

Washington, D.C.

Here Comes Tomorrow. By A. W. ZELOMEK. (New York: Ziff-Davis. 1944. Pp. xi, 131. \$2.00.)

The style of present-day economic advisory services to business men embodies three principles: (1) be prophetic, clothing uncertainty with a little vagueness if necessary; (2) be brief; (3) make the analysis simple, even if this requires superficiality. Mr. Zelomek's little book on the post-war decade suffers from possessing these three characteristics. In 127 small pages he discusses ten topics ranging from international relief and post-war prices, income, and employment to the prospects for moderate-cost housing and the outlook for competing types of transportation.

Economists who have given thought to post-war conditions will find that the book does not add to their knowledge or understanding; but the judgments expressed, where definite, seem sound to the reviewer, and the layman should find the brief discussions useful.

EVERETT E. HAGEN

Washington, D.C.

Statistical Methods; Econometrics; Economic Mathematics; Accounting

Elementary Statistics: with General Applications. By MORRIS BLAIR. (New York: Holt. 1944. Pp. xiv, 690. \$3.50.)

Fundamentals of the Theory of Statistics. Vol. I. *Elementary Statistics and Applications.* Vol. II. *Sampling Statistics and Applications.* By JAMES

G. SMITH and ACHESON J. DUNCAN. (New York: McGraw-Hill, 1945. Pp. x, 720; xii, 498. \$4.00 each.)

The interregnum of the war period has given an opportunity for college faculties to reexamine their teaching programs, and college catalogues soon will reflect the changes this critical thinking has brought about. Attention is turning to what it is the college-trained man should have gained during his college years, and on this touchstone the various college courses must be judged. In such a test, how does college instruction in "statistics" fare? Two elements of the problem seem to have developed.

In most institutions statistics has become for many course programs a basic course, in large part in recognition of the prominent rôle played by factual information in business, science, government, politics. There has been a tremendous increase in the compilation and use of statistical information in this country in a day in which "full employment" and "gross national product" are familiar terms. The challenge to the colleges is whether or not their instruction is preparing graduates in the best ways possible to enter this environment. Much of the burden of the training in ability to get meaning from figures rests on the "statistics" courses, though it is not ^{helps title} the subject matter and the instruction that are important. ^{lc concl}

At the same time that colleges are being called u^p deficit^f combat the entering freshman's distaste for figures and to develop his ^{consump} in their interpretation and use, the colleges also are expected to train ^{some} students to be firmly grounded in the advancing techniques of specialized statistics. The two instruction purposes should not be merged, even partially, for the purposes of the instruction are fundamentally different. The two books under review illustrate, basically, approaches to these two instructional problems.

Blair's text, according to his friendly aside to the student, is not intended to develop embryo statisticians; it is written from "the standpoint of consumption rather than with a view to creation." Yet it remains a textbook of statistics methodology and not a textbook for training in the skills of using figures—the skills so lacking in entering college students and often so poorly developed when they leave. As yet there is no textbook addressed four-square to this special problem and probably will not be until bold curriculum planning shall reveal its urgent need.

For the most part the Blair book follows the organization of the typical textbook in statistics. The first section contains a short, usable discussion of use of numbers, a review of elementary arithmetic and algebraic operations, a good summary chapter on use of ratios and percentages followed by a survey of sources of information and of the problems of compiling material, and a discussion of tabular and graphic presentation. The text is set at a rather simple level.

Section II, Analysis of Large Samples, has the usual description of methods of computation of various measures pertaining to frequency distributions. The presentation is elementary and straightforward. For the curious student the text will have shortcomings at many points, for little is said about the reasons for or origins of the various measures. Included in this section is the problem of curve fitting, introduced interestingly enough not with respect to time

series but as a correlation problem. Here also is a chapter on ways of organizing data into tables for analytic purposes, and finally an elementary discussion of the normal curve and its application to statistical work.

Section III, Analysis of Time Series, describes the familiar procedure of analyzing trends, seasonals and residual cyclical fluctuations, supplemented by several pages devoted to the Mitchell-Burns method of cyclical measurement. Index numbers are covered briefly. Section IV treats of small samples and includes a discussion of analysis of variance and covariance patterned after Snedecor. The student is taken somewhat deeper into this area than he is in the early sections of the book. Section V is devoted to curvilinear and multiple correlation. An interesting addition is an appendix of technical terms referred to in the text.

There is much to commend the Blair text to one in charge of an elementary statistics course intended to carry the student part-way along technical statistical lines. Indeed there are some sections for students who are not interested in statistical procedures as such. The text suffers often in that many of the measures are presented without much discussion of their use or purpose with the result that, unless the instructor is careful, the student will be given a diet of smörgåsbord. However, by careful selection and supplemental work, the text should prove useful, particularly in view of the excellent review questions and exercises that are included at the end of each chapter.

The two-volume book of Smith and Duncan is primarily what its title suggests: a book devoted to the theory of statistics. As such it is not intended for any "consumer" of statistics, but for the student of statistical method, particularly as related to all the problems stemming from frequency distribution analysis. The other areas typically covered in a statistics course are included but often in such a form as to suggest that they hold no great interest for the authors. This observation is not meant to detract from the general excellence of the book but rather better to characterize it. •

It is the intention of the authors that Volume I would be used in a first course, Volume II, in a second course devoted to more advanced study. In Volume I will be found therefore the general introductory materials, elementary frequency distribution analysis, correlation and time series analysis, leaving to Volume II a further development of the general theory of frequency curves and the theory of random sampling. First a few comments on Volume I.

The point of departure is variation, first "static variation," then "dynamic variation," *i.e.*, time series. On this note the authors build their analysis. As they claim, considerable care was taken to make sure that the logical exposition does not set too rapid a pace. The more difficult topics are delayed in their treatment even when logical arrangement might suggest their being handled earlier, yet all done with sufficient skill that the parts are smoothly blended into a clean and consistent progression. The book abounds with useful footnote cross references to specific pages, and if the decision to use a pedagogical rather than a logical outline is the reason for this happy practice, the by-product was of unforeseen value.

The book has a forbidding appearance, for considerable experience in mathe-

matics would seem to be a prerequisite to its classroom use. Actually, the authors avoid complete mathematical demonstration of all points and frequently beg a question as being beyond the scope of the text, and probably wisely so. Whether the book is feasible as a general text will be revealed by classroom experience; in this reviewer's opinion there is no reason for students expecting to concentrate in statistical work to find it prohibitively difficult.

Correlation is developed from Pearson's product moment approach in a section characteristically entitled "Study of Bivariates and Multivariates." As a teaching device it may be questioned whether this method is as efficient as the variance approach, although it is well presented here and leads smoothly into the general discussion. The analysis of time series section is notable for its discussion of rational and for its strong section on fitting of trends, which includes a welcome chapter on orthogonal polynomials. Treatment of seasonal variation is less thorough despite the wide use of the technique. In this section, as well as throughout the book, there are interesting notes on the historical background of the techniques under discussion.

The second volume is a welcome statement, in what is for the most part nontechnical form, of the theory of frequency curves and random sampling. Its focus is on the theory, and that theory is built up step by step with considerable skill. While there is little that is new in the book, it is valuable to have its systematic presentation of material hitherto found in rather scattered form. That the book is designed as a teaching vehicle is evident in the pains that have been spent upon orderly development of ideas. Use is made of the technique of setting up a mathematical model and subsequently relating the model to actual experience situations. The mathematics burden is somewhat heavier in this second volume than in the first and the practice is followed of inserting mathematical appendices to chapters where they seem to be desirable. Extensive appendix material is included covering basic needs.

Briefly, the second volume covers the following topics: (a) generalized systems of frequency curves, (b) the theory of random sampling, particularly from normal populations both discrete and continuous, (c) advanced sampling problems covering problems of discrete manifold populations, sampling fluctuations in regression statistics, analysis of variance and problems of non-normality. It will be disappointing to the general student that the authors give relatively little attention to the technique of the analysis variance. Though this approach is covered, ramifications are not developed, nor are there many practical illustrations of its use.

This relatively slight treatment of analysis of variance and the meager mention of the problem of design of experiment give something of a clue to the character of the book under review. It is not a practitioner's book in the sense, for example, that Snedecor's book is. Illustrative examples for the most part are the familiar problems of age or grades of college students, or the more or less classic problem of the life of electric light bulbs. The approach is theoretical and attention is paid to the systematic development of the theory rather than to the exploration of solutions to practical research problems. Yet it must not be thought that Smith and Duncan have failed to provide an

excellent book. They have without question given us a usable textbook for the orderly development of the theory of sampling. The student who goes through a course using this text will have firm grounding and much of the background necessary for the understanding of current sampling procedures, at least so far as they rest on random sampling; but for modifications of these procedures or for the practical background of research work, the student must expect to look elsewhere.

To return to the thought expressed in the opening paragraphs, training in statistics must be focused in the light of purpose. If this reviewer is correct in believing that the basic curricular purpose behind most elementary statistics instruction today is not a desire to develop a knowledge of statistical methodology but to develop skills in the imaginative use of figures, then no textbook is satisfactory which concentrates solely on the ramifications of technique. But where the intent is to provide instruction for the purpose of training a man in research procedures based on statistical techniques, an entirely different type of textbook is called for. In such a program of instruction the Smith and Duncan book might well find a place.

CHARLES A. BLISS

Harvard University

Business Cycles and Fluctuations

Prosperity, We Can Have It If We Want It. By MURRAY SHIELDS and DONALD WOODWARD. (New York: McGraw-Hill, 1945. Pp. vii, 190. \$2.00.)

The general argument of this book is that prosperity, "which almost everyone will grant is essential" (p. 110), does not mean full employment or high national income (p. 111), but "profitable and expanding business" (p. 113). To get it and keep it, we must "go back to the common-sense mechanics of economic progress" (p. 118). We must let interest rates rise to encourage savings, reduce taxes on corporate and personal incomes to encourage investment, remove restrictions on security market operations, cut public expenditures to the bone, reduce the national debt over the cycle as a whole, recognize the superior efficiency of big business, abolish limitations on provision for depreciation, obsolescence and reserves, remove controls of production, consumption and prices, allow rents to rise, avoid credit-fed booms, have a balanced foreign trade.

The support of this argument consists of an admixture of truth with sweeping statements having no analytical or empirical support, misrepresentations, and factual or analytical errors. It is flatly declared, for example, that freedom has been attained only "in the greatest Grecian age" and in the 19th century "in parts of the so-called Western World" (p. 17); that the United States has given its people a "fairer deal" than any country on earth (p. 64); that government charity (public works) involves a loss of political freedom (p. 100); that the "miracle" of war production in the United States was in no way due to government or to labor, but was due to business management in corporations, financial institutions and on farms (pp. 119-20).

In other cases, a little analytical support for the argument is provided, but it is very often wrong. For example, deficit-finance is opposed because it means "high taxes for all" (pp. 16, 81). The authors do not discuss the arguments on this point of Lerner, Domar, *et al.*—in fact, they do not mention any literature specifically. Surely it has been made clear enough by now that deficit-finance means higher taxes only under certain conditions, and that these conditions would usually be such that no deficit-finance is required; and that under *no* conditions must deficits lead inevitably to higher taxes for everyone. Similarly, the authors argue that low interest rates result in inflation (p. 31), that saving in the United States has been made "dangerously unattractive" by low interest rates and high taxes, and that the United States has too little "savings and capital formation" (pp. 57, 80). Throughout, there is an implication that there is a natural tendency for all income that people and firms want to save to be invested, at any level of income—that is, that there is a natural tendency toward full employment equilibrium. Can the whole Keynes-Hansen literature be summarily dismissed in this manner?

It is even stated that the money which "public spenders" previously planned to spend to maintain full employment has "*already been spent*" (authors' italics) for the war (p. 99). This statement is, perhaps, hardly an analytical error. It is of a piece with "passing the cost of war to future generations through borrowing." One might as well argue that because the nation spent a lot for consumption in the 1920's, it cannot spend more in the 1940's.

The authors conclude that the solution to unemployment is private investment (p. 154). If any single point has emerged from recent discussion of income and employment, it is that the solution to unemployment is spending—for public investment, public consumption, private investment and private consumption. Private investment has no special advantage for creating employment, and as Kalecki and others have shown, it has one major disadvantage: every time private investment is stimulated by any means other than an increase in the marginal efficiency of capital, there is a tendency for the rate of profit to fall. Trust or insurance companies, it is true, may benefit less from a high level of consumer spending than from a high level of savings and private investment.

In cases where empirical evidence is adduced to support the authors' arguments, the conclusion is sometimes far from clear. They argue, for example, that deficit-financed government spending in the 1930's did not stimulate spending, but rather frightened it off (pp. 98-99). In fact, national income rose about three times as much as national debt in 1933-37, and the authors' statement cannot be supported empirically. The authors also state that in the past, we have had "prosperity interrupted infrequently by brief periods of adjustment" (p. 112). Even with the authors' definition of prosperity, the statement is doubtful. If prosperity is "full employment," and surely to most people it is, then the statement is patently false. Over the whole century 1825-1929, full employment was a rarity.

While no specific literature is cited, there is a tendency here and there to misrepresent well-known arguments of other economists. According to the

authors, the statement is sometimes made that the public debt is not important (p. 12). Some readers may be inclined to think of Hansen and others in connection with this statement. In fact, however, no economist ever said that the public debt was *unimportant*; they have only said that a public debt is not a crushing burden, that it does not mean national bankruptcy, and so forth. Again, the authors claim that the "mature economy" thesis says that the economy already has all the buildings, roads, equipment, and housing that it needs (p. 56). A statement more completely in contradiction with what Hansen and others have said could hardly be imagined.

Similarly, the book states that taxes take income from those who earn it and give it to others; and that government service is the one item of compulsory consumption (p. 53). The nuances here are quite unjustified, implying as they do that people deriving income from government expenditure do not earn it, that all other income *is* earned, and that the people have no control over government outlays. The argument that income should be redistributed to raise the propensity to consume, according to the authors, "really means that the government should kick in the teeth anyone who had learned to do a good job and anyone who had acquired enough wealth for others to use" (p. 85). As Lerner has made clear, redistributing income need not mean taking income away from anyone; it means only that *increases* in income must be reserved mainly for those in the lower brackets. In any case, the implication that everyone deserves whatever income he has is quite unjustified. The statement that "government charity" (public works) means loss of political freedom (p. 100) should have been supported; or, it should be added that pressure by employers on the political activity of their employees is not unknown. To a Canadian (and no doubt to an Englishman or an Australian) the remark that the present rate of personal income tax progression in the United States is "plainly dishonest" (p. 150) sounds a little strange, since the effective American rates are very much lower in the middle brackets, and somewhat lower even in the top brackets, than the Australian, Canadian, and British, and no substantial relief is expected in Australia, Britain, or Canada for some time to come.¹

In short, the book is less a solid piece of economic analysis than a political pamphlet, apparently designed to help restore to big business the power, prestige, and profits it enjoyed in the 1920's. The book takes on an importance disproportionate to the weight of its arguments, however, because Messrs. Shields and Woodward, respectively Economist to the Irving Trust Co. and Research Assistant to the President of the Mutual Life insurance Co., not only proclaim their status as professional economists to lend authority to their views, but label all those who disagree with them amateurs, incompetents, ignoramuses, malcontents, and—significantly—do-gooders. It seems safe to guess that the dissenting group thus described will contain the bulk of professional economists.

¹ Since this sentence was written, all four countries have reduced their income tax rates. The flat rate reductions of 10, 12 and 16 per cent in the United Kingdom, Australia and Canada are somewhat more generous to taxpayers in the very high income brackets than the American reduction.

As the authors themselves point out, "The trouble with economic panaceas is that they can be made to have some degree of plausibility" (p. 69). The statement is as true of their own "back to the good old twenties" formula as it is of the prosperity formulas they attack. The layman cannot be expected to discern for himself that books such as this one are not really economics. Indeed, the book will certainly be well received by many readers who want to believe what it says, and who will be only too happy to characterize dissenters in the authors' terms. Vigorous controversy on the margins of economic science is highly desirable; interpretations of imperfect factual data are bound to differ; as people, economists will attach different weights to subsidiary and non-economic objectives of economic policy; but if the public is to be allowed in for such debates, the exact nature and extent of the disagreement should be made clear. Books such as this one will serve only to revive the legend that "economists never agree," and to destroy public confidence both in economics and in economists. Such a result cannot be dismissed lightly. Lack of public confidence in economists leads to bad economic policy, and bad economic policy can lead anywhere—depression, revolution, war.

According to the Preface, this book was written on the train between New York and Washington—mostly, one suspects, on the way back from the crowded hubbub of Washington offices to the dignified quiet of Wall Street. Here is part of the trouble. Too many books on economics are being written on trains, in hospitals, at government or business desks between conferences, in subsidized research institutions. Far too few are the result of long, leisurely and truly independent research. Economic thought will no doubt be greatly enriched through the experience gained by economists in business, finance, government, trade union organizations, and so forth in the last fifteen years; but it is high time for a fair number of economists to go back to their ivory towers.

BENJAMIN HIGGINS

McGill University

Public Finance; Fiscal Policy; Taxation

The Taxation of Corporate Income. By CHARLES JOHN GAA. (Urbana: Univ. of Illinois Press. 1944. Pp. x, 285. \$4.00.)

This book consists of a long series of short comments on the problems and procedures of federal income taxation under the following chapter titles: Accounting and Taxation (7 pp.); What Income Is (14 pp.); Periodicity (25 pp.); Income Realization (12 pp.); Non-Recurring Items (57 pp.); The Accounting Entity (24 pp.); Gross Income Items (9 pp.); Deduction Items (36 pp.); Amortization (18 pp.); Cost of Goods Sold—Inventories (10 pp.); An Income Concept (11 pp.).

There are no highlights, and the organization is not effective. The treatment is largely historical, with a minimum of analysis and constructive suggestion. Although the book is dated 1944, it contains no mention of any of the de-

velopments of the last five years. Perhaps the picture of the confused state of accounting theory (pp. 18-19) would be a little less gloomy if consideration were given to recent developments, including the 25 research bulletins issued by the Committee on Accounting Procedure of the American Institute of Accountants. Notwithstanding the title, much material is included (e.g., the discussion of traveling expenses on pp. 152-53) which has no significant bearing on *corporate* income taxation. On the other hand it hardly seems reasonable to omit or minimize such important subjects as consolidated returns, excess-profits taxes, and the experiment with the undistributed-profits tax in a study of the taxation of corporate income. The style is scrappy (a great many of the paragraphs running only two to four lines). There are 1409 footnotes (which should be a world's record) occupying 55 pages following the discussion. None of the references, apparently, are to materials issued later than 1939. Among significant books not referred to is Gilman's *Accounting Concepts of Profit* (1939). Many of the subheads deal with unimportant topics and it is confusing to find no subheads in the text of Chapter I although nine are listed in the table of contents.

Dr. Gaa does well to indicate that "accrual accounting" means a process of "matching" incomes and expenses in terms of periods and is properly critical of the failure of the Treasury to recognize the application of this basis adequately, particularly with respect to prepayments by customers and estimated costs applicable to current revenues that will be literally incurred in later years. In the light of some of the amazing decisions of recent years he could be still more critical. Things have come to a pretty pass when the Tax Court takes the position that funds deposited by customers in advance of the furnishing of goods and services by the vendor are realized income when received. The plain fact is that such collections give rise to definite liabilities to customers, and no income whatever is involved under any theory of matching or accruing. The decision of the Court in *South Tacoma Motor Co. v. Commissioner* (3 TC 51) has no adequate legal basis and not a vestige of support from an accounting standpoint. We are all guilty, however, of using misleading terms in this connection. Thus we should not refer to taxpayers who "sold service contracts to customers" to describe collection of advances and the issue of receipts therefor in the form of strips of tickets or coupon books.

The author's suggestions that "distributions of income made to any equity can be considered in the nature of expenses for the use of capital" and that "to the extent that . . . short-term contributors, or others, are financing the corporation without a return for their services, the dividends or interest received by the corporation may be said to be inflows, similar to gifts, not matchable with outflows" are interesting but not very convincing from the standpoint of corporate accounting. The discussion of "reserves" (beginning on p. 31) is inadequate, particularly with respect to classification and explanation of accounting significance of amounts credited to reserves. There is no discussion of the special problem of reserves for war losses and reconversion costs.

The author adopts a broad concept of income for tax purposes, and thus

recommends that gifts be treated as income (p. 83) and that the "entire structure of capital gains and losses . . . be eliminated" (p. 91). (Query: if gifts are income why cannot proceeds of bequests be similarly treated?) He recommends exclusion of "unrealized appreciation" and "unrealized value shrinkages" on the ground that they "cannot be measured currently for expedient use" and not on the score of "mere conservatism" or lack of it (p. 97). With respect to the question of "gains or losses upon the acquisition or disposal of reacquired shares," he points out that accountants generally hold "that transactions in a corporation's own shares do not give rise to income" (p. 120), but offers no clear-cut criticism of the Treasury's fallacious position and does not even refer to the analysis presented by Hord¹ some years ago, which exposes the basic weakness in this position.

The discussion of revenue realization for tax purposes is poorly organized. The author does not seem to recognize that the "installment method" (pp. 53-54) is simply a special case of the "cash basis" (p. 56). There is no thoroughgoing consideration of the interesting philosophy underlying the LIFO procedure for computing cost of sales and inventories—a philosophy which considers income to be effectively realized only when there is an excess from the proceeds of a sale above the amount required to renew all the cost factors consumed in making the sale. No mention is made of the special problems of accruing income under CPFF contracts and in other connections under war conditions.

In commenting on "losses on the abandonment of assets" (pp. 103-05), the author makes no reference to the problem of writing off plants in foreign countries or the treatment of subsequent recoveries on such properties. A special chapter is devoted to amortization (including depreciation) but there is no mention of amortization of war facilities, and the important and controversial subject of amortization of intangibles is dismissed with a few lines.

This book does not include any major proposals for simplification of the tax structure or basic modifications designed to bring about greater equity in the application of income and profits taxes. There is, however, an occasional comment having some bearing on these questions. For example, on page 127 (in connection with an inconclusive discussion of stock dividends) the author suggests: "Much simplification and more justice under the income tax law probably would result if the corporation entity were overlooked for tax purposes, as is done with partnerships, and the income were taxed directly to the shareholders as it arose." With the coverage apparently limited to the period prior to 1940, there are no references to the programs for tax reform included in recent publications (for example, *Production, Jobs and Taxes* by Harold M. Groves). In the concluding chapter, however, Dr. Gaa adds his voice to those who have long advocated creation of a non-partisan, scientific committee or commission to study the tax situation systematically and formulate a long-range program of revision.

W. A. PATON

University of Michigan

¹ *Accounting Review*, Vol. 14 (Sept., 1939), pp. 272-85.

The Corporation Franchise Tax as a Basis of Taxation. By RICHARD W. LINDHOLM. (Austin: Univ. of Texas Press. 1944. Pp. xviii, 276. \$4.50.)

The taxation of corporations is one of the most controversial issues in the whole field of taxation. Since the initial impact of these taxes is directly on business, the possibility of their being repressive is very real, and the many opportunities for shifting leave the final incidence uncertain. Yielding, as they do, approximately 40 per cent of all federal tax revenues today, and equivalent amounts in some state tax systems, they are too important either to be relinquished or ignored. Yet there is no agreement as to the best form of corporate taxation, and most of the "justifications" for such taxes are based on shifting sands. Consequently, any new light that can be obtained on this important subject is to be welcomed.

Dr. Lindholm has limited his study to general rather than special franchise taxes, but as he has defined the field this covers annual taxes on both property and income as well as organization taxes, and applies to federal levies equally with state levies.

The book gives a brief account of the development of the corporation, going back to ancient times. It emphasizes the close relationship of the growth of corporate powers with government financing. In England, particularly, it is noted that corporate privileges were sold for the benefit of the national treasury throughout the seventeenth and eighteenth centuries. In the discussion of American corporate taxes the author emphasizes the tendency of legislators to take advantage of the opportunity to obtain revenues in exchange for corporate privileges, and minimizes the explanation that special corporate taxes were attempts merely to levy the equivalent of the general property tax when intangibles were found to be evading the general levy (pp. 61-62).

The historical development is followed by an analysis of the legal and economic bases of corporate taxes. Toward the end of the volume the present status of corporation taxation in the United States and foreign countries is summarized.

The discussion of economic bases is perhaps the least satisfactory part of the study. The author discounts the criticism of those who would apply the test of taxpaying ability on the ground that the revenues from these taxes may well be spent for the benefit of the poorer group of stockholders. His contention "that the fact that the government is collecting additional taxes very nearly presupposes additional expenditures" (p. 105) seems highly questionable in view of the fact that there is a choice of tax sources even today, and that deficit financing is an accepted alternative. Moreover, there is no reason to believe that small stockholders as a class benefit from government expenditures, as he implies, more than others.

In his discussion of the problem of reaching all corporate income without double taxation of the distributed portion, he makes no mention of the important report of the Committee of the National Tax Association on Federal Taxation of Corporations, 1939, although he discusses the reports of earlier National Tax Association committees at some length. Incidentally, the report in question is in many respects at variance with the author's conclusions.

He dismisses the taxation of undistributed income to the stockholders on poorly supported grounds. The contention that the difficulties of administration are all but insurmountable (p. 111) is not so widely accepted that it can go without argument. And the statement that such taxation would favor the rich corporations "which are already distributing practically their full net income" (p. 111) is not borne out by any data known to the reviewer.

The book leaves something to be desired in the matter of accuracy. To mention a few instances, some of the footnote references (e.g., on p. 25) are incorrect. The table of percentages of state revenues from franchise taxes (p. 195) has several errors. These errors are found in the source table, but a little thought might have led the author to question at least the figure of 3.88 per cent for Delaware corporation taxes. The correct figure is 38.8 per cent. And the author has taken a good many liberties with some of the quotations, notably that from the *Encyclopedia Britannica* (p. 37).

The author's conclusion, toward which the discussion throughout the study has been consistently pointed, is that the principal—and adequate—justification for corporation taxation is monopoly control (p. 244). Consequently, he suggests that small and large corporations should be taxed according to different principles. He proposes two types of franchise—one for small and medium-sized corporations and one for large (p. 246). The former group would be taxed under the partnership method; the latter would be subjected to an apparently more steeply progressive income tax than that now in force. The reviewer is left with the impression that the discussion leading to this proposal has been somewhat weighted in its favor. However, complete objectivity is not to be found in the best tax studies and the proposal does point up an important consideration in the thorny problem of corporate taxation. This and the summaries of corporate tax history and practice make the book a useful contribution to this field of study.

MABEL NEWCOMER

Vassar College

International Trade, Finance and Economic Policy

British Finance, 1930-1940. By WALTER A. MORTON. (Madison: Univ. of Wisconsin Press. 1943. Pp. xii, 356.)

The spring of 1943 was too early to begin to appraise British financial policy during the war, and Professor Morton wisely did not attempt the task that would necessarily have been left uncompleted. Only rarely he touches on the events of 1940, and on one such occasion he refers to the dramatic statement by the late Ambassador to the United States, Lord Lothian, that Britain was nearly at the end of its cash resources in December, 1940. Professor Morton adds that the cash resources were then 3 billion dollars. The authority for this estimate is not given and it would seem to be too high, since we know from one of Sir John Anderson's last pronouncements as Chancellor of the Exchequer that in March, 1941, when Lend-Lease began, the British net cash balance was reduced to a single digit in millions of

sterling. Spending in the United States on the sinews of war had proceeded at such a rate that Britain was indeed "broke."

In the main, however, the book deals with British finance in the world setting during the most chaotic and controversial decade of the inter-war years. The scope of "finance" has been generously interpreted, and sometimes the author goes pretty far afield in his search for broad and deep causes, political and psychological as well as economic, of the events under examination. This gives the book a digressive character, and in fact it can be dipped into at random with almost as much reward as that obtained from consecutive reading. This is not necessarily a defect, but, as the author recognizes, the very breadth of his treatment makes it impossible to deal exhaustively with any one topic.

The structure of the book is such that the framework of thought does not stand out clearly. The average reader will sometimes experience an exasperating feeling of irrelevance and even prolixity, more so than is really justified. The first of three Parts examines the British financial crisis of 1931, the measures adopted to deal with it, and the alternative proposals that were rejected. Quite rightly, some account was taken in Part I of events and policies abroad, and this reexamination of the problems of 1931 is of current interest. It reveals the difficulties, or as some would say the weaknesses, not only in the gold standard but in any international monetary system. Professor Morton believes that the alternatives to going off gold, namely, the mobilization of British foreign investments, or the pursuit of a vicious deflationary policy, were rightly rejected. He does not say so, but his own analysis would seem to support the view that more could have been done in an effort to avoid the breakdown of the gold standard only if there had been more international organization. (See page 54, note 6.) If this is true, the moral for the Bretton Woods Agreements is clear. But Professor Morton refuses to moralize about the virtues or vices of the gold standard. In his view, what we want from the international monetary system is an orderly method of restoring equilibrium with a minimum of suffering all round, and Professor Morton does not believe that zero losses for external creditors of one kind is a perfect solution, although this is the view of those who believe that national honor demands the maintenance of the gold standard at all costs in the face of glaring disequilibrium.

Part II of the book is called "International Finance," but it is really an examination of events subsequent to 1931, for the most part topically rather than chronologically. The thread of argument regarding British financial policy is not easy to find in this Part. It is possible that the reader would have been more skillfully guided if Part III on Domestic Finance had come first and if the policies there under review had then been more deliberately integrated in the international picture. But the task is enormous, and it would be churlish to criticize Professor Morton for choosing his own method of exposition.

The following are among Professor Morton's main conclusions from his examination of the pre-war decade: (1) Britain's "going off gold" was not a deliberate act of policy nor was it a stroke of genius that played an important

part in British recovery. In fact, experience elsewhere in the world indicates that contemporary opinion overestimated the importance of exchange depreciation and gold devaluation as economic stimulants. (2) British recovery up to 1937 was the result largely of "natural forces" and cheap money, although Professor Morton considers the latter to have been a small and doubtful factor. By "natural forces," Professor Morton seems to mean the absence of direct action by the government to promote recovery and especially action that involves deficit financing. After 1937, however, rearmament began to dominate the scene, and government spending assumed a prominent place. (3) Professor Morton rejects the "mature economy" theory as the basis of the claim that government should be responsible for the volume of investment. In his view, that theory belongs to the guesses of the philosophy of history rather than to the generalizations of science. He agrees that government should accept some responsibility for the volume of employment but argues that action should be cautious, based on trial and error within a "mixed" system of mainly private enterprise, with the government admixture designed to be noncompetitive with private enterprise, rather than daring and sweeping on the assumption that private enterprise cannot do the job. Even if private enterprise "after a period of trial, fails to respond adequately" Professor Morton, while admitting the inevitability of the extension of government influence, would still prefer the process of trial and error to grandiose planning based on a highly questionable prognosis of future development.

REDVERS OPIE

Washington, D.C.

Model Bilateral Conventions for the Prevention of International Double Taxation and Fiscal Evasion. (Geneva: League of Nations. 1945. Pp. 85. \$1.00.)

This book is a report of the Second Regional Conference of the Fiscal Committee of the League of Nations, held in Mexico in 1943. The conference included representatives from Canada, the United States, Mexico, and eight of the South American countries. The report presents three model bilateral conventions, pertaining respectively to the income tax, successions tax, and reciprocal administrative assistance for the assessment and collection of direct taxes. These conventions are explained and discussed.

The conference was only one link in a chain of activities seeking to establish international fiscal coöperation. The Mexico meeting had before it the work of a previous conference in Mexico in 1940, and this in turn was preceded by the work of the General Meeting of Government Experts on Double Taxation and Fiscal Evasion, which was organized by the League of Nations in 1928. Several meetings of the Fiscal Committee worked on the subject from 1930 to 1939, and numerous bilateral conventions were concluded in the prewar period.

The income tax convention proposed at the Mexico conference included among its major recommendations the following: In general, income may

be taxed by a country when it results from property or activities located therein. In the case of personal services, a resident of Country A becomes taxable in Country B on his earnings there if he stays in B more than 183 days during the taxing year. In the case of business earnings, a corporation domiciled in Country A is taxable in Country B if the company maintains a "permanent establishment" of a "productive character" in Country B. Mere sales to, or purchases from, customers in B will not render the A company taxable, and it may even maintain a purchasing establishment in B without becoming liable to its taxes. Apportionment of earnings between home and foreign branches is to be by "separate accounting," and this is said to conform to "the usual practice among concerns engaged in international business." Provision is made for other apportionment procedure (similar to that applied by the American states) for firms that do not use separate accounting.

Income from capital invested in Country B by the residents of Country A (such as dividends and interest) is also taxable in Country B. Country A may apply its income tax to all of the income of its resident taxpayers, wherever earned, but it must credit against these taxes the sums paid by these taxpayers to Country B. "This deduction is, however, limited to an amount which bears the same proportion to the tax which would have been due in the country of the taxpayer's residence or 'fiscal domicile' on his entire income as the income taxable in the other country bears to that total income." These provisions ensure the domiciliary country the opportunity of applying a progressive scale to a full measure of the taxpayer's income and of applying the same relative burden to taxpayers whether or not part of their income is from foreign sources. Moreover, neither country is allowed to discriminate against foreign investors or businesses as compared with domestic ones.

The rules recommended for the avoidance of double taxation of successions are similar to those offered for the income tax field. Apparently even stocks owned by deceased residents of Country A are taxable in Country B if they represent corporate property in B. At least this is the case where the stocks are kept in B and title to the property passes under its laws. This is a controversial point, however, and the convention deals with it rather ambiguously.

Finally, a convention is offered to establish procedure for the exchange of information and for the coöperation of administrators in levying and collecting taxes from taxpayers in whom the countries have a mutual interest.

Such work as that of the Mexico conference can be applauded as international coöperation at its best; it is far more important that there be agreement on international tax relations than that it be perfect in all details. Among the salutary results of such agreement is the assurance to capital-importing countries that their tax bases will not be depleted by outside economic penetration, and at the same time, the assurance to capital-exporting countries that their investors abroad will not be subject to arbitrary discriminatory or double taxation (and, hence, unfair competition). Uncertainties are the great impediment to the flow of capital across boundary

lines. The Bretton Woods proposals attacked some of these uncertainties; similar efforts in the field of taxation are a necessary supplement.

International efforts to alleviate double taxation may also be useful in stimulating the American states to do something about the deplorable multiple taxation of interstate business and investment. That there is likely to be more real coöperative intercourse between the United States and Canada than between Michigan and Ohio is strange but true. Here is a problem which cries out for attention by administrators' organizations and by the Bureau of Internal Revenue at Washington. There are many important differences between international and interstate multiple taxation, but the latter should be at least as solvable as the former.

To be sure, considerable thought and some literature have been devoted to the domestic multiple taxation problem. Some years ago Professor A. L. Harding, in his *Double Taxation of Property and Income*, one of the Harvard Studies in Conflict of Laws, worked out certain principles for dividing tax bases among jurisdictions. The main criterion selected was that of "economic integration," the degree to which property and income enter the productive activities of the contesting states. This principle is quite consistently applied in the conventions proposed at the Mexico Conference. Professor Harding's conclusions were roundly criticized as inimical to the application of graduated rates and inconsistent with the logic of a personal levy. But the proposed conventions meet these objections successfully. Moreover, income is too important a tax base to be limited to a personal levy. However, here again it may be said that action against double taxation is far more important than the kind of action. The Mexico Conference has convincingly demonstrated that the evil of multiple taxation is far from invincible.

HAROLD M. GROVES

University of Wisconsin

Industrial Organization; Price and Production Policies; Business Methods

Industrial Organization and Management. By LAWRENCE L. BETHEL, FRANKLIN S. ATWATER, GEORGE H. E. SMITH, and HARVEY A. STACKMAN, JR. (New York: McGraw-Hill. 1945. Pp. xii, 798. \$4.50.)

Few texts in industrial organization and management achieve a well-balanced exposition between general principles of management and the details of actual business practice. They either adopt the "handbook" type of presentation where descriptions of operating details and applications of techniques prevail, or they become general summaries of the economic and engineering principles used by management and largely ignore problems of application. In general appraisal, this book attains such a balance of exposition. This achievement is more praiseworthy in view of the fact that texts prepared by several authors, and even more so, by authors who are actual practitioners in the various fields under discussion, are generally characterized by a consideration of the trees more than the forest. For the

most part, these authors do not become absorbed in the details and techniques of practice in their several specialized fields but present the picture of an industrial firm as a coördinated and integrated economic unit.

Another commendable feature is the excellent documentation from current and extensive sources. Government materials, current economic, engineering and business periodicals, and monographs and reports of business and management associations and research agencies have been used to good advantage. The analysis has been kept timely by the inclusion of many new applications of principles and extensions of techniques which occurred under the pressure of wartime demands for peak production. By recognizing the ascension in importance of the coördinative functions of management and the almost universal trait of executives to consider the problems of their particular firms as unique instead of realizing that there are general and fundamental principles of management which can be effectively applied to their specific situations, the authors indicate insight into two prevailing characteristics of modern industrial management.

There is no one best pattern for arranging the various divisions of the subject of industrial management as long as the interrelationships of the various functioning departments of a firm are stressed. Arrangement and emphasis should be determined by the objectives to be served. However, it does not seem that the objectives of a general textbook in industrial organization and management are satisfactorily served where approximately one-half of the book is concerned with production and personnel management with a consequent slighting of other equally important managerial tasks. It is unfortunate that such essential topics as organization management and planning, purchasing, the economics of equipment, and sales management and price policy are either superficially treated or omitted. Presumably on the assumption that the value of instruction in industrial management lies in developing ability to apply general principles to practical industrial situations, the authors have followed the traditional method of presentation wherein case materials are used to illustrate the management principles developed in the text and also to give the student some rehearsals in applications. There is a traditional difficulty which accompanies this method. Because of the limitations of space, the case problems are invariably weak, vague and misleading in their attempts to illustrate the applications of principles. This difficulty is apparent with many of the cases appended to these chapters.

The first six chapters provide a general survey of the development and present nature of industrial enterprises in the American economy. They include not only the pattern of historical development, but also a discussion of the ownership and operation arrangements prevailing currently. Emphasis is placed upon the structure of the industrial economy and the framework of relationships between management, ownership, finance and government within which firms operate. These introductory materials are better organized and presented than those found in most books on industrial management. Ownership and creditor rights and equities deriving from venture and loan capital investment processes and various ownership arrangements are generally

but adequately set forth without conveying the impression that the authors have undertaken to provide a short course in business finance.

A more effective presentation might be obtained by considering industrial risks and forecasting prior to basic industrial ownership and operation structures. With this sequence, ownership and operating structures could be more immediately related to financing the enterprise. Chapters on the elements of administration and organization in industrial management texts are often confusing and incomplete. There is a lack of precise definition and uniform usage of terms; even the term "organization" itself is commonly used with several different meanings in any single discourse on this topic. The various types of organization structures are concisely described in this book, but there is not sufficient analysis of the evolution and purposes of these structures to convey any real understanding of them. Methods of departmentation, types of departments, distinctions between control, advisory and service staff functions, and the need for organization management and planning, are typical of the shortcomings. Even in the final chapter where the authors pay particular attention to coördination of the enterprise, organization, as the principal device by which coördination is achieved and control is maintained, receives only cursory attention.

Product development is logically presented beginning with market acceptance and proceeding through research, the basic sales and manufacturing decisions required about new products, product engineering and decisions relating to product simplification, diversification, and standardization. The management of physical facilities including plant location, layout, buildings, and the selection and installation of equipment are briefly covered in one weak chapter. The most serious omission is that of the economics of equipment. The economic aspects of the general problem of equipment selection, use, and replacement, are certainly equal in importance to the factors of arrangement and production flow in factory operations. However, with the exception of a general statement on the problem of obsolescence, in the chapter on methods analysis, these factors are ignored. Surely in an economic atmosphere of less than full employment with stagnation theories predicated, among other causes, upon the existence of a great fixed capital implementation, the problems of the management of fixed capital investment in equipment would seem to be important, and should become especially significant to industrial firms emerging from the war with greatly expanded equipment.

The major portion of the book is concerned with the "Operation of the Industrial Enterprise" (Section III) which includes manufacturing the product, industrial relations, selling the product, and controlling the office and financial operations. Manufacturing operations are viewed in the sequence of planning production, controlling materials, controlling the quantity and quality of output, and methods and work analysis. Much of the confusion which usually persists between planning and controlling production is eliminated here through careful definition of terms and by a consideration of the planning phase for semi-serialized manufacture as well as for the two extremes of completely serialized and job-order production. The objective of planning for serialized production is a "balanced production line"; semi-

serialized manufacture seeks "balanced schedules"; and job-order production plans for "balanced machine loads" (p. 242).

Comprehensive materials control includes the four phases of purchasing, external transportation, inventory control and internal materials handling. How to succeed as a purchasing agent is summarized in a series of "constructive purchasing policies" (p. 255), wherein purchasing agents are advised, among other things, that "acceptance of personal gifts and favors from vendors, particularly Christmas gifts, world series or prize fight tickets, and free dinners and entertainment, is a rather controversial issue" (p. 256). Readers are even asked to contemplate the case of the purchasing agent whose vendors give him a quart of whiskey, one necktie, ten calendars, two memo pads, one paperweight, one box of candied fruit and one dozen golf balls for Christmas, and to decide which gifts he should accept and why (p. 311). Fortunately these aphorisms on purchasing are followed by some down-to-earth descriptions of practices in shipping and receiving, inventory control and material handling, and one's faith in the general proposition that executives accomplish more useful functions than deciding what to accept for Christmas is partially restored.

The two chapters on routing and scheduling and on dispatching are well written because the objectives and principles are kept foremost in the discussion and just enough supplementary illustrative material is added. Production control "systems" must be designed for any given plant and will vary among plants in terms of such factors as the internal organization of the firm, characteristics of the supervisory and operating personnel, the extent to which production planning is performed and the inventory control system. These quantity phases of production control (*viz.*, routing, scheduling, and dispatching) are followed by the quality phase. "Quality control" is used in its broad meaning to include not only final inspection but also techniques, like statistical quality control, to regulate the variables present during processing. The short description of the Shewhart techniques views them in proper perspective and it is regrettable that a brief illustration of control charts is not included. Methods analysis and work simplification are appropriately related to production planning and control. Divorcing work simplification from time study and making the former a device important to operations and the latter to wage and salary administration are in accordance with modern practice.

Industrial relations are viewed as including the three aspects of labor relations, personnel management, and public relations. Personnel management is discussed only from the restricted viewpoint of the employment office and considers the problems of developing a labor supply; selecting, testing and interviewing prospective employees; establishing employee records; merit rating; and turnover, absenteeism, and employment stabilization. Training programs for executive, supervisory and operative personnel receive a timely emphasis in the light of industrial experience during the war and the post-war competitive advantages to be gained by the organization which is "training-minded." Employee counseling which is primarily useful where special personnel problems (*e.g.*, the employment of women in industrial

plants) exist, deserves more consideration than it receives since it may also be of value in dealing with the special problems incidental to the employment of returning veterans.

As to labor relations, the major difficulties apparent in the joint relations of labor and management are listed as problems of collective bargaining itself (wages, hours, etc.), problems regarding the coördination of the many diverse programs of unions and management, and those which are concerned with the extension of government controls to protect the public interest. On the thesis that "The wage relationship is the very heart of sound labor relations" (p. 555), job evaluation and scientific wage and salary administration are held to be indispensable management functions. Commendable features of this chapter are the definitions provided for many of the terms used in job evaluation (*e.g.*, job rating, job analysis, etc.) and the way in which the authors outline the objectives and general procedures of job and merit rating without becoming hopelessly involved in the mass of detail and controversy which surrounds the various methods employed.

Proceeding to time study and wage incentives, the authors suggest as prerequisites to the installation of a successful wage incentive plan: a sound wage policy; a wage structure developed from job evaluation and community surveys; standard conditions and methods for each operation; time studies as the basis for rate-setting; and an understandable translation of time studies into piece rates. After briefly outlining the characteristics of a few of the currently applied types of incentive plans, the conclusion is reached that the "Measurement of the effort put into work by the average employee and variations in the establishment of expected performance remain major weaknesses. Possibly the severest handicap to overcome is the lack of confidence of employees in the integrity of complicated wage-payment systems. The greatest contribution may yet be found in the by-products of methods improvement and the establishment of standard practices as prerequisite to establishing the time standard" (p. 618).

The management of sales concentrates upon the functions of the sales department and its organization, and sales promotion. Sales department functions are classified as those having to do with sales planning, promotion, selling, inquiries and orders, and servicing. No mention is made of the determination of price policies or the rôle of the sales manager in shaping pricing decisions. Control over distribution costs is made a matter of directing sales effort by market analysis and classification and enforcing the sales cost budget. From the point of view of industrial management it would have been more useful to emphasize the management of sales promotion rather than attempt to cover the one aspect of advertising so extensively with a weak discussion of such broad matters as the economic and social aspects of advertising and advertising principles. The difficulties of coördinating the activities of a sales department and of a sales promotion department in a large industrial enterprise are shown clearly by the examples chosen.

Management of the general offices completes the discussion on operations and includes office, accounting, and budget control, and records and reports. Office management, controllership, and auditing functions, as well as such specialized activities as those of the payroll, tax, and credit departments,

are outlined concisely prior to matters of cost and budget control. The section on cost control emphasizes the managerial objectives of organization for cost control and avoids preoccupation with the technical accounting aspects of expense distribution, standard costs, and similar problems even though these matters are fully discussed. The purposes of budgets are planning, control, and coördination and these are achieved through the two phases of budget preparation and budget control. These phases, in turn, depend upon the coöperation and participation of all divisions of the firm, the element of flexibility (e.g., the variable budget) and the immediate availability at all times of data pertinent to the budget. While records provide basic information, reports are necessary to present and analyze this information and to recommend what action should be taken. The basic problems are what records should be kept and how to keep the record system flexible to meet changing demands for information.

The final chapter emphasizes the need for internal and external coördination in the enterprise. Internal coördination involves unifying the activities of the various parts of the firm through "constant experimentation with all phases of company organization and operation" (p. 748), with profit maximization as the objective. External coördination views the industrial firm as operating in its own little world, and in relation to an industrial world, a national world, a geographical world and a world of thought, ideas, and resources. The complicated network of relationships existing in this vast universe between the firm and many other "worlds" cannot be adequately described in a short review. Briefly, however, for each firm "limitless patterns of association are turned up from one moment to the next in kaleidoscopic fashion" (p. 751). Then in a crusading vein and extolling the virtues of a pioneering spirit, the authors list fourteen problems which management must face in the immediate future. They conclude with the exhortation to management "to go forth and meet the great human problems of the times" (p. 776).

It is questionable whether the field of industrial organization and management has anything to gain from additional general textbooks, but it does need a more sophisticated analysis of many of its problems. It needs more of the intensive inquiry and research into its various specialized aspects which the books by Dr. Robert Gordon¹ and Professor Paul Holden² represent.

WILLIAM K. SCHMELZLE

University of California
Berkeley

Tin Under Control. By K. E. KNORR. (Stanford University, California: Stanford Univ., Food Research Inst. 1945. Pp. xi, 314. \$3.00.)

In current discussions, the most nearly convincing arguments in favor of international cartels are advanced in the case of raw materials industries which occupy important positions in the economies of industrially backward

¹ Robert A. Gordon, *Business Leadership in the Large Corporation* (Washington: Brookings Inst., 1945).

² Paul E. Holden, Lounsbury S. Fish, and Hubert L. Smith, *Top Management Organization and Control* (Stanford University: Stanford Univ. Press, 1941).

countries, and which suffer from chronic maladjustments arising from the immobility of heavy investments in fixed capital. The maladjustments are bound to be aggravated by the transition from war to peace. Tin is such an industry, and if cartels are to be part of the accepted mechanism of post-war international trade, it is certain that the tin cartel, begun in 1931, will be prominent among the early starters. On the other hand, if a convincing analysis of the structure and operation of the tin cartel from its inception to the middle of World War II should disclose the presence of basic defects in the cartel approach to the problems of the industry—defects inherently incapable of correction—any rational basis for public acquiescence in the revival of the tin cartel would be destroyed; and the destruction would sweep with it the better part of the case for international cartels generally. If we deny the privilege of cartelization to tin, we shall scarcely concede its necessity in many other industries.

Tin Under Control is, thus, a key study, and its appearance is timely indeed; timely, that is, if public policy in this field is to be built upon anything more substantial than fears and pressures. It is also, fortunately, an able study, entirely worthy of the importance of its subject. The treatment is carefully organized (possibly over-organized?) and thorough. Following opening chapters dealing with the commodity, the nature of its demand and the peculiar conditions of its production and supply, the author outlines against a background of industry problems each of the private and governmental-private control schemes employed during the 1930's, and analyzes the results achieved by each in terms of its purported objectives. He continues with an appraisal of the effects of a decade of control upon producers, producing and investing countries (he distinguishes significantly between the two), industrial and ultimate consumers, and upon consuming countries; and, on the basis of an estimate of demand and supply prospects, concludes with a not-too-favorable judgment on the issue of post-war tin control. The analysis is well-directed and penetrating, the statements of facts are fully documented, and the author's approach is sincerely objective. Mr. Knorr is keenly aware of the difficulties facing the tin industry, is sympathetic to the troubles of its members, and is not horrified by the possible use of "un-orthodox" collective measures to meet the situation. His findings, hence, are all the more impressive.

To quote from the Foreword by J. S. Davis, drawn from the author's conclusions: "From the standpoint of the public interest in the world at large, . . . the tin control reveals signal defects. It interfered with the economic distribution of tin production. It made insignificant contributions toward price stability. Its 'buffer-stock' schemes served no useful purpose beyond profiting their participants. It maintained tin prices higher than was necessary, or than was conducive to elimination of high-cost units or to protection of tin against future competition from substitute materials. Moreover, its contribution to the improvement of working conditions in the tin-mining industry was almost negligible."

To this it may be added that tin control, as described by Mr. Knorr, was concerned solely with the palliative protection (rather lush protection, to

be sure) of vested financial interests; no concern whatever was given to basic remedies for the industry's ills, and the effect was to aggravate rather than to lessen those ills. Further, the decisions made under tin control—decisions important to countless thousands throughout the world—rarely reflected any considerations more lofty or inspired than those commonly associated with the ancient art of horsetrading.

It is worth noting that this book should have a very special attraction for *teachers* of economics. All of us have laid out in outline form the arguments pro and con on cartels, and have searched for examples from various sources to give factual content to the propositions as stated barely. *Tin Under Control* goes down the "con" line completely—all the way. I can think of no omissions. It does not appear that the author strove in any way for this effect. It happens simply that the story of tin control, carefully and dispassionately told, contains a full array of reasons why cartelization should not take place, and Mr. Knorr has spelled them out systematically and exhaustively.

It is interesting, however, that in his closing pages and despite the wholly discouraging control record which he has unearthed and recorded, Mr. Knorr still clutches hopefully at what seem to me to be the straws of "planned disinvestment" and "intelligent buffer stock schemes" as possible devices to facilitate desirable readjustment in the tin industry. I believe that the defects he has found in the workings of the tin cartel are organic, inherent in the very nature of organizations of this type and the nature of the tasks they seek to perform. I have considerably less faith than the author in the "redundancy" schemes which so intrigued the British ten years ago; I find it difficult to believe that the physical destruction of productive facilities is the way to economic order and prosperity. Hope for any of these schemes derived from the possibility of government participation in, or direction of their operations (even that of international government), must be blind to the fact that governments were involved, up to their ears, in tin control. And I am afraid that my own experience in the Consumers' Advisory Board of the N.R.A., and in the Consumers' Divisions of the Department of the Interior and the National Defense Commission must leave me quite cold to any suggestions that consumer representation on control committees promises anything beyond an illusory reform.

The truth is that *Tin Under Control* brings us to the edge, but only to the edge, of the really basic issue in this field. The author sticks closely to his immediate chosen problem. He uses his materials to pass judgment upon tin control from 1931 to date and to probe tentatively into the future, but he does not marshal them for a frontal attack upon the issue of individual competitive enterprise *versus* any scheme or combination of schemes, private or governmental, producer-operated or run by producers with consumer representation. At their best, what is being sought by all such schemes is a remedy for the distressing problem of immobility of capital in an uncertain and changing world—a world characterized by multiple entrepreneurship, production for consumption far removed both geographically and in time, consumers free to choose and to change their choices, and wars and weather.

It is pretty difficult in a world so constituted to distinguish between the chances and consequences of mal-investment on the one hand and, on the other hand, the chances and consequences of other types of inefficiency which, in an individual enterprise economy, it behooves business men to avoid. One question which must be asked is whether the risks of mistaken investment can be shifted from individual business men by any processes of collective action (private or governmental) sufficiently delicate and selective in their conception and operation to leave undisturbed any significant productive functions for individual business men to perform, together with any mechanisms capable of spurring or inducing them to adequate performance. A second question is whether, granted the theoretical possibility of devising such processes, there is any likelihood that any commodity schemes or cartels actually set up within the foreseeable future will in fact correspond even remotely to the pattern. On the first question I am, personally, uncertain; on the second, quite clear.

BEN W. LEWIS

Oberlin College

Agriculture; Forestry; Fisheries

The Farmer's Last Frontier, Agriculture, 1860-1897. By FRED A. SHANNON
The Economic History of the United States: Volume V. (New York:
Farrar and Rinehart. 1945. Pp. xiv, 434. \$5.00.)

"The American farmer has rarely been prosperous." Professor Shannon's book opens with this somewhat Homeric first line. But "rarely prosperous" by what standards or in what comparison? The criterion is never fully explicit. It is not comparison with farmers of other countries; indeed, the lack of a comparative view is a weakness in certain points of the analysis. It is not any explicit comparison with the propertyless industrial worker, though the final chapter on "The Farmer and the Nation" contains some comment on the relative position of agriculture in the national economy.

Perhaps the full argument might be stated as follows: the American farmers have not had the prosperity they might have had *if* they had understood better the land on which they worked, *if* access to the land had been harder for the speculator and easier for the working farmer, and *if* the world of business with which they had to deal had been less ridden by monopoly. The first of these points is developed in the chapter on "Nature and the Farmer," which shows how often the farmer was misled by unexpected variations in the types of soil. The second is the subject of the chapter on "Disposing of the Public Domain." In this, the author, making heavy and fully acknowledged use of the work of Paul Wallace Gates, sets the Homestead act in properly-reduced perspective as compared to the land grants to railroads and other large recipients. "The homesteaders, even including those who acted as tools of speculators, got just about one acre out of every six or seven that the government gave up. Those who took free farms to keep

received about one acre in ten" (p. 64). The third point is implicit throughout and is developed in the chapter on "Governmental Activity in Agriculture" and in the two chapters, rather more descriptive than analytical, devoted to the farmers' political uprising and to their efforts at self-help through coöperatives.

Professor Shannon's discussion of the processes and practical problems of agriculture is fitted, occasionally with some difficulty, into seven regional chapters—two on the South, two on the Prairies to which for this purpose he adds the eastern part of the Middle West, two on the range country, and one that combines the Northeast with the Pacific Coast. The Southern section is notable for the incisive account of the rise of share-cropping, which he describes as "the outcome of years of experimentation to find what method would produce the most constant supply of submissive labor at the lowest cost" (p. 87). Each of the chapters gives evidence of the painstaking research in which, as the author says, "not one word" of his students' discoveries was used until he "had examined it at its source and noted its context" (p. viii). It is clear, however, that the author's keenest interest and richest knowledge applies to the area between the eastern edge of the Prairies and the Rocky Mountains. For the period in question, this emphasis is hardly a fault. These were the regions that were receiving the largest migration and making greatest use of the new mechanical equipment, to each of which a special chapter is devoted. "To a remarkable degree," as Professor Shannon points out, "the major agricultural developments of 1861-1897 centered in or grew out of the Prairie states" (p. 148).

"I have tried," says the author, "to view the scene as the farmer saw it and to picture the farmer himself as he affected and was influenced by the world in which he worked and lived." His greatest gift is in making the life of farm and range intelligible even to city dwellers in what he may think of as the trans-Hudson East (p. 176). The sulky plow, for example, took "the farmer out of the furrow and put him on a seat" (p. 129). "The woodsman needed a longer time for clearing land than the Prairie farmer did for eradicating sod" (p. 20), but the forest provided more food to keep the settler alive till he could get in his first crops. "The dude-ranch student of cowboy glamour should . . . follow all day in the footsteps of the arid-country 'puncher,' when the grass has all shriveled up, and watch him burn thorns from the prickly pear with a blowtorch, while the cattle follow him hungrily from clump to clump" (pp. 207-08). Similarly, the author does much to interpret the census maps of persons to the square mile, which are often used but are hard to visualize in terms of actual settlement. He declares that "Maps showing six or more persons to the square mile are more likely to reveal the frontier of plow farming than those ranging downward to two" (p. 27); and he adds that even a density of eighteen to the square mile represented "scarcely a fourth as much as the land would support" (p. 32).

Professor Shannon sees economic history in terms of problems, both the farmer's and the government's, and is not afraid to use the hypothetical method. He gives, for example, suggestive indications of what might have happened if homesteads had been made inalienable except to the government (p. 55), if the size of the homestead had been properly adjusted to geographic

conditions (p. 75), "if the tendency toward small landownership had not been positively discouraged" in the South (p. 89), and if the federal government "had adopted a rational leasing act, dedicating the range country to cattle and sheep," instead of tempting the small farmer to "erosion and starvation" (p. 219). The editors speak of the vigor with which Professor Shannon disposes of the theory of the labor safety valve. He estimates "that for every industrial toiler who made good on the land there were twenty farmers' sons who moved hopefully, and a few successfully, into the cities" (p. 55). Another controversial theory regarding settlement, M. L. Hansen's dictum that "the European immigrant was not a frontiersman" and that the actual first breaking of new land was always done by the native American,¹ is unfortunately not discussed but is apparently rejected by implication.

The Farmer's Last Frontier is the first to appear but the fifth in proper order of a projected nine-volume economic history of the United States, of which the editors, in addition to the author, are Henry David, Harold U. Faulkner, Louis M. Hacker, and Curtis P. Nettels. To them I offer one minor suggestion. Whoever prepared the footnotes of the present volume has painstakingly dredged up abandoned given names of the authors cited and has filled out their initials in square brackets. The author does not spare himself and thus appears as Fred A[lbert] Shannon, but future volumes might well be spared this pedantry. If, however, the rest of the series keeps to the standard of workmanship set by the present volume, it will do much to increase the substantial content and the seriousness of American economic history. No honest teacher in the field will be able to leave his course without revision to take account of Professor Shannon's work.

CARTER GOODRICH

Columbia University

Food for the World. Edited by THEODORE W. SCHULTZ. Lectures given at the Twentieth Institute of the Norman Wait Harris Foundation, University of Chicago. (Chicago: Univ. of Chicago Press. 1945. Pp. xiv, 353. \$3.75.)

Food Enough. By JOHN D. BLACK. (Lancaster, Pennsylvania: Jacques Cattell Press. 1943. Pp. vii, 269. \$2.50.)

Professor Schultz, the editor of the volume of essays presented in the 1944 Harris Foundation Lectures, is to be commended for his part in developing the program and bringing together a combination of qualified persons representing different fields to present views on various aspects of the important subject of food. The participants included recognized economists, workers in nutrition, students of population problems, and others able to contribute to the broad field of the conference.

The twenty-three essays are grouped under six heads and the formal papers in each part are followed by a section, "Observations of Participants," covering the general discussions. An over-all picture may be presented by referring briefly to each of the six parts.

¹ *The Atlantic Migration* (Cambridge, Harvard Univ. Press; 1940), p. 14 *et passim*.

Part I, *The Food Movement*, includes papers by Frank G. Boudreau and John D. Black. The former reviews the work relating to nutrition under the League of Nations. The latter reviews agricultural programs of the United States since 1920.

Part II, *Population*, has papers by Frank W. Notestein and Frank Lorimer. The first presents a summary picture of population growth and prospects. The second considers some quality aspects of population and refers briefly to the bearing nutrition has on this matter.

Part III, *Nutrition*, consists of contributions from several workers in this field. Papers by C. A. Elvehjem, L. A. Maynard, Paul R. Cannon, Ancel Keys, and Lydia J. Roberts are included. These provide economists and others outside the field of nutrition with a good review of some of the research and knowledge in this rapidly developing field.

Part IV, *Food Supplies*, includes papers by several economists relating to food supplies, adjustments and economic aspects of nutrition. The authors are Karl Brandt, Walter W. Wilcox, Howard R. Tolley, P. Lamartine Yates, Margaret Reid, and E. W. Gaumnitz.

Part V, *International Relations*, has six essays by men who through research or administrative experience have come into close contact with foreign trade and international aspects of food problems. The authors include Percy W. Bidwell, Edward S. Mason, Leroy D. Stinebower, Paul H. Appleby, Allan G. B. Fisher, and H. C. Taylor.

Part VI, *Consequences and Policy*, has papers by Theodore W. Schultz and Karl Brandt. The former reviews some of the material covered by the conference and then considers consequences in terms of food and agriculture. The concluding essay discusses "Elements of an International Food Policy."

Diversity in approach, attitude and emphasis is to be expected in such a combination. In spite of such differences, however, agreement on major issues is substantial. Thus, several point out inadequacies of our agricultural policies between the two wars, particularly in regard to their attention to nutritional problems. Better nutrition is clearly recognized as of public concern. Repeated deference is made to the dependence of good nutrition on adequate incomes and understanding. Attention is directed to the importance of full employment, research and education. Lack of income is pointed to as the biggest limiting factor in the improvement of nutrition. The need for public programs of food distribution even in times of prosperity and in countries of relatively high levels of living is recognized.

Agricultural surpluses rather than shortages are foreseen as post-war prospects in the western world. The densely populated areas of the Orient present distinctly different population and nutrition problems.

International aspects of the food question are recognized, not only in Part V but elsewhere as well. Conflicts between domestic and international policies are pointed out by several.

The quality and contribution of the different essays vary but agreement on a rating scale is not to be expected, so no purpose will be served by reviewing such differences. Since each essay is a separate unit, selection is available to readers. Many, no doubt, will find points at variance with their

own views. The inclusion of the open discussions bring out some differences, and these sections add to the value of the volume.

The primary contribution of this book does not lie in the newness of the ideas present, but in its achievement in bringing together the results of research and thought of a number of competent workers with respect to one of the important topics of today. It is a source of ideas and stimulus to anyone seriously interested in its field. This is merely another way of saying that the book should enjoy wide reading for the field is one of universal concern.

John D. Black's *Food Enough*, in the words of its author, was written "to help our people understand the food situation as it has developed in this war." It is intended for the lay reader rather than the professional economist. The book is concerned with the effects of the war on the demand for food, problems of meeting food needs during the war, and questions of price control and rationing. The closing chapters consider the international food picture, the conference at Hot Springs, and post-war food prospects.

Because the book deals so largely with the situation existing at the time it was written (1943), much of its content is of limited usefulness for the longer run. Its principal value now and in the future is as a source and a refresher to those who have occasion to review the food problems of the first years of the war. The author writes with his customary aplomb in dealing with questions regarding which there are wide differences of view, and it is not to be expected that all readers will accept his conclusions in every instance.

Incidentally, it might be well to remind publishers that if they expect the claims which they print on the jackets of books to carry weight, they ought to be concerned about the accuracy of their statements. The jacket on the reviewer's copy credits Black with the authorship of East's *Mankind at the Crossroads*.

O. B. JESNESS

University of Minnesota

Economic Geography; Regional Planning; Urban Land; Housing

Report of the Urban Planning Conferences under the Auspices of the Johns Hopkins University: Evergreen House, 1943. (Baltimore: The Johns Hopkins Press, 1944. Pp. xxi, 244. \$2.75.)

It is cheering that in the midst of war, groups in many cities took time to think about the post-war problems of the community. In the winter of 1943-44 McGill University and the Province of Quebec sponsored a series of talks on housing and community planning, since reprinted in a monograph. The Columbia University School of Architecture conducted a series of weekly talks and discussions summarized in *The New Pencil Points*. The Cleveland chapter of the American Institute of Architects, the University of Pennsylvania, and the University of Cincinnati sponsored similar series that attracted

mature leaders in civic design, finance and government. The same ferment undoubtedly was at work elsewhere: I speak only of series of which I have personal knowledge.

The sessions sponsored by the Johns Hopkins University constitute another such series. They represent an interesting innovation in conference technique, made possible by "the setting of Evergreen House" which "its gracious mistress, Mrs. John Garrett" made available. On each of six Saturday evenings, one to three invited speakers presented prepared papers before a "considerable local public," with a question period. On Sunday mornings and afternoons the speakers met with twenty to thirty invited guests for informal discussion.

The *report* is, of necessity, extensively edited and rearranged, since these round-tables, by their very constitution, ramble on and get into blind alleys and repetitions. The six week-ends are presented under four headings: Basic Directives in Urban Planning; Transportation; Housing, Health, Recreation and Welfare; and The Governmental Framework and Other Processes of Urban Planning.

Two outstanding Baltimoreans, Abel Wolman and Dr. Huntington Williams, presented papers. For the rest, the conference took full advantage of its proximity to Washington and called upon leading social scientists, architects and engineers from several government agencies.

The Editorial Committee—Messrs. Bryn Hovde, Thomas MacDonald, Glenn E. McLaughlin and Huntington Williams—follows the formal papers and summaries of discussion with an "Evaluation." From this, one would gather that experts continued to disagree on the really knotty problems, that the same ideas were presented at Evergreen House that were simultaneously being discussed at Montreal, New York, Cincinnati, Cleveland, Philadelphia, and elsewhere. The evaluation is honest enough to suggest that one of the chief values of the conference was to bring together in a charming, informal setting officials responsible for programs in aviation (to which extensive attention was given), highways, rail transportation, housing and health, and to make them more aware of the reciprocal interactions of their specialties and of the specialties and the city as a whole. As anyone knows who has striven for coördination and cross-fertilization of disciplines, the beginning lies in better personal acquaintance and mutual understanding; on this score alone, the conferences could be considered well worth while. The *Report* is a memorial of sessions that evidently stimulated the participants, it carries some of the stimulation over to the printed page.

CHARLES S. ASCHER

New York City

Labor and Industrial Relations

Management at the Bargaining Table. By LEE H. HILL and CHARLES R. Hook, JR. (New York: McGraw-Hill, 1945. Pp. vi, 300. \$3.00.)

The purpose of this book, as set forth by the authors, is "to assist man-

agement in safeguarding its rights so that those rights may be used to make collective bargaining work as an instrument toward better employer-employee relations" (p. 4). Concerning the authors, Mr. Hill is vice-president in charge of industrial relations of the Allis-Chalmers Manufacturing Co.; Mr. Hook is secretary of the Rustless Iron and Steel Corp. Both men have served on the National War Labor Board.

Starting with the proposition that every collective agreement can be broken down into the six component parts of union protective clauses, management protective clauses, employee protective clauses, seniority, grievance handling, and miscellaneous clauses, Part I, *The Content of the Collective Bargaining Agreement*, proceeds with an examination of these respective clauses. The method of discussion is generally to present an example of a poor clause, discuss its deficiencies with respect to the preservation of managerial rights, and then offer an example or examples of clauses considered acceptable from the same viewpoint. Part II, *Technique of Collective Bargaining*, is a much briefer section devoted to advice to managements on their preparation for bargaining and the negotiation of the agreement. This section includes a chapter on the presentation of cases before the War Labor Board.

This book will prove valuable to those to whom it is addressed—management representatives—as a manual or guide teaching them how to resist the demands of union leaders. It will prove helpful to union leaders as a clearly delineated picture of what are probably prevalent management attitudes toward the union and beliefs concerning company-union relationships. It is of interest to economists primarily for what it implies regarding the nature of what I have elsewhere called the "organized business."¹ This review is concerned primarily with those implications.

The principal problems raised may perhaps best be presented in the form of two inter-related questions.

(1) The preservation of managerial prerogatives, or rights of management as the authors prefer to call them, is the central theme. The book is replete with such expressions as "fundamental management rights," "the invasion of rights necessarily reserved to management," "sole responsibility," "freedom to manage." The argument runs in terms of management responsibility for efficient operation of the business, requiring the reservation of discretion in certain areas to management and management alone. This is of course no new line of thought. It is an attitude which organized labor has had to combat from its inception.

But what are these management rights which must be preserved? The authors offer no clear answer. In one place they express the hope that "union negotiators will recognize that their essential and basic function is to represent the employees in matters relating to wages, hours, and working conditions, rather than the invasion of rights necessarily reserved to management" (p. 4). Yet alert union negotiators are now recognizing that many areas heretofore discretionary with management—depreciation policy, production techniques, sales and advertising programs, methods of company financing—

¹ *Jour. Pol. Econ.*, Vol. LII, No. 2 (June, 1944), p. 97.

are closely related to the wage-paying ability of an enterprise, an area of union interest which the authors admit as legitimate.

In another place management prerogatives are defined as "those rights, or that authority, which management must have in order successfully to carry out its function of managing the enterprise" (p. 56). The opportunities for divergence of opinion on this definition are readily apparent when one weighs the content of the words "must" and "successfully." Many of the clauses now found in collective agreements cover matters which were considered sacred and essential rights by managements of an earlier day. (Do the authors really believe that insurance and pension schemes should be outside the purview of organized employees, as they state on pages 177 and 178?) And if successful management is conceived in terms of efficient production, we must admit that some limitations on efficiency have already been socially approved in the interests of the fuller development of the employee, and that social standards are not static.

(2) In an organized business, established by the collaboration of organized owners and organized workers, both through their chosen representatives, to whom is management responsible?

It is notable that while the authors are recurrently insistent that the employees, in distinction to the union, are a third party to the agreement, the rights and welfare of whom management is obligated to consider, even if necessary by opposing union demands which management conceives to be inimical to those rights and that welfare, they avoid direct mention of the owners—stockholders in most instances—as a similarly interested party. It is not the preservation of the owners' interests about which the authors are concerned, except as those interests are identified with management rights. Yet any "responsibility" of management which can be established must in the very nature of management be responsibility to someone *other than management*.

Under any bargaining agreement, the areas in which collective agreement has replaced managerial determination have been defined, and *within the framework of that agreement* management is—assuming responsible unions—free to manage. The problem of management is how *best* to manage within that framework. It is now largely, but it reasonably should not be, up to management itself to determine as a bargaining party what that framework should be. The removal of certain areas from the sole competence of management may make the problem of management more difficult, but it is surely a phase of "group-government" administration which must be faced and accepted.

If the term "industrial democracy" has any significance, it is that the organized owners and the organized workers jointly establish the terms of their collaboration, and that management owes a responsibility to both parties within the terms of the agreement. To the extent that unions have not entered into any agreement on depreciation policy, for example, they may be considered to have accepted the discretion of the owners exercised through the management, and in this sphere management is responsible solely to the owners. Such spheres are not properly management prerogatives, however,

but owner prerogatives. Whether unions shall be prevented from "invading" them, whether by law, custom or simple refusal, is not properly a matter for management decision.

It is becoming increasingly clear that the status of management (as well as the union) is a subject deserving of deep thought and careful study. The earlier work of Berle and Means, carried forward in the Hearings and Monographs of the TNEC, pointed up one aspect of the problem. The less profound work of Barnham provided other grounds for consideration. The employment of business executives in numerous governmental agencies during the war has raised fresh problems. This volume by Hill and Hook carries implications which point to the need for examining the position of our industrial bureaucracy in still another direction.

NEIL W. CHAMBERLAIN*

Personnel Relations: Their Application in a Democracy. By J. E. WALTERS. (New York: Ronald Press. 1945. Pp. xx, 547. \$4.50.)

In the number of topics covered, this volume aims at a high degree of comprehensiveness. While more than half of the book is devoted to the management of personnel relations and specific personnel techniques, there are sections dealing with labor unions, with governmental agencies in the field, and with labor-management coöperation. There is also a statistical appendix, as well as a second appendix in which a suggested form for a periodic personnel audit report is outlined. The author is generous and judicious in his listing of reference material for further study.

The more useful portions of the book will probably prove to be some of the chapters dealing with specific techniques, such as those on employment procedures and on personnel rating. Even in these technical chapters, however, there are occasionally unfortunate errors or implications. Some of these are of minor importance, such as the statement (p. 159) that one of the customary steps in the line of promotion within a company is "from officers to stockholders." Others raise more fundamental questions, such as the lack of a clear appraisal of the rôle of job evaluation (pp. 183-84) with respect to intraplant differentials, on the one hand, and interplant differentials, on the other.

The author has been less successful in integrating the various topics to provide an operational guide to the conduct of day-to-day, face-to-face relations within industry. At best, the task of formulating such a guide is beset with great difficulties. The job is not simplified if we fail to come squarely to grips with some of the most troublesome questions which continually arise to plague the practitioner and the student in the field of industrial relations.

One question of this sort concerns the relation of the personnel department to the rest of the organization. Professor Walters formally recognizes the "staff" nature of the personnel department's functions, although he qualifies his remarks with "to a great extent" and "principally." Nowhere, however,

*The author is now on active duty with the United States Naval Reserve. The opinions contained herein are the private ones of the writer and are not to be construed as reflecting the views of the Navy Department or the naval service at large.

does he pose openly the problems of divided authority that arise if the personnel department is given line authority. At times, moreover, the discussion suggests that the distinction between staff and line, and the appropriate rôle of the personnel department, have been forgotten. Thus, for example, the reference (p. 89) to companies "where the foremen do not have the time for personnel functions." Again, the following statement is made: "One of the chief functions of the personnel relations department is the negotiation of labor contracts . . ." (p. 85). Is the assumption of this function consistent with the staff rôle of the department?

There is an increasing belief among students in the field that successful handling of grievances lies at the heart of good industrial relations. Professor Walters's book contains only two specific references to this question. The first, about a page in length, deals primarily with the formal steps of a grievance procedure, and is included in the chapter on labor unions as one of the "Ways and Means of Accomplishing Union Objectives." The second reference, on page 85, consists really of one sentence: "For any employee dissatisfaction, a procedure for handling grievances can be worked out to the mutual satisfaction of the management and the union."

The author states in the Preface that "the book attempts to present personnel relations . . . from positive democratic viewpoints of those who are actively concerned." To a considerable degree, this theme does indeed permeate the discussion and gives a wholesome slant to the treatment of certain topics. For example, the first "crucial test" for the value of employee service work is "that it has the wholehearted approval of the employees." At times, however, one has the impression that the "democratic theme" has been added as an afterthought to a more or less conventional treatment of a specific technique, or that insufficient attempts have been made to analyze or reconcile apparently conflicting "democratic" points of view. At still other times, the author's enthusiasm for democracy leads him into statements that border on the extravagant. The following passage, taken from page 5, may be a case in point: "Democracy in personnel relations should be able to prevent many difficulties which in the past have existed in industry and business, such as depressions, unemployment, inadequate incomes for one-third of our people, job dissatisfaction, nepotism and selfishness, and greed for money and power."

DOUGLASS V. BROWN

Massachusetts Institute of Technology

Voluntarism in Organized Labor in the United States. By GEORGE GILMARY HIGGINS. (Washington: Catholic Univ. of Am. Press, 1944. Pp. viii, 180.)

Voluntarism in Organized Labor in the United States is an examination of the original philosophy of the American Federation of Labor, its modification in the decade of 1930-1940, and the causes that made these changes inevitable. The first three chapters are devoted to a summary of the history of the labor movement, and to the evolution of the idea of voluntarism as shown by the statements of the leaders of the American Federation of Labor. The next five chapters are concerned with tracing the changes in the attitude of the AFL and its leaders, and with assessing the importance of these changes. Father

Higgins has carefully examined the sources and the opinions of both proponents and critics of the voluntaristic philosophy.

The author has not sought to make a case for or against the voluntaristic view. Instead he has sought to examine its character, and to explain why it has been found no longer feasible. While Father Higgins has limited himself to examining the issue as it affects the American labor movement, it is nevertheless true that voluntarism is not peculiarly a philosophy of American labor. Voluntarism is in fact an American, or better yet, a reformist adaptation of Syndicalism. The suspicion and fear of the state common to Gompers, and to his numerically-declining followers, are basic to the point of view of the Syndicalists and Anarchists of Europe and the United States. All emphasize the importance of direct or economic action as a means of improving the lot of the man who works. American voluntarism is not, however, hostile to capitalism, nor does it aspire to replace it by a Socialistic or Communistic society.

American voluntarism which was fashioned mainly by Gompers, while emphasizing the all-importance of economic action and collective bargaining, arose not only from an abstract fear of government intervention, but as a philosophic weapon with which to fight the Socialists. Gompers was convinced that an expanding American society was basically hostile to Socialism and to the propagation of Socialist ideas. He did not believe that the labor movement, faced by the most aggressive capitalism in the world, would survive if it adopted a Socialist philosophy. Nor did he believe that independent political action could benefit labor; for, with the absence of class feeling common to European labor, an attempt to espouse a specific political philosophy or to support a special political party would lead to disastrous division in the ranks. He therefore fought the efforts of the Socialists to commit the economic movement of labor to support of a specific political party, although events forced Gompers to adopt the non-partisan or bipartisan policy by rewarding friends and punishing the enemies of labor.

All of the critics implicitly assume that it was only Gompers and his followers that prevented a larger labor movement, one that included the great basic industries. The critics usually overemphasized the importance of the American Federation of Labor as an organizing instrument of the American labor movement. Actually the job of organizing has been mainly the job of the international unions, and they were naturally fearful of venturing large sums in risky organizing enterprises, as they knew the determination and ruthlessness of the masters of the then unorganized industries. There is no evidence that supports the belief that a greater labor movement could have been organized. In the American environment of early twentieth century America, it is doubtful if any other type of movement could have been built. Several attempts were made, by those hostile to Gompers's views, but all met with failure.

Gompers's anti-governmentalism, as the author shows, never had the unanimous consent of the entire labor movement. Up to World War I the Socialists were a vigorous and by no means inconsequential minority, and later the railroad block succeeded in forcing through the convention of

1922 a resolution favoring government ownership of railroads. This was only a temporary deviation; for, with the defeats of unionism immediately after World War I, the doctrine of voluntarism gained renewed vigor. "Whereas in pre-war days it had assumed a neutral attitude towards capitalism, it now became an ardent champion of the same, considering itself the buffer . . . between Capitalism and the radicalism of the Socialist and Communist varieties." It would have been worth while to investigate the reasons for this change. Following World War I, the American Federation of Labor faced an attack by organized employers acting through the "American Plan," and at the same time the position of the conservative officers was threatened by the Amalgamation movement led by William Z. Foster, then a simulated trade unionist. The vigorous espousal of capitalism was designed to attract more favorable treatment by employers who feared communism, and at the same time it was a reaction against the program of the radical dissidents who had threatened to unseat the existing leadership.

The anti-governmental philosophy had pushed the American Federation of Labor into an extreme position. Instead of espousing the principles of social insurance, the American Federation of Labor actively opposed all forms of government aid except industrial accident insurance. In the 1920's unemployment insurance was dismissed as a dole by the official theorists, who scornfully compared it to the full pay envelope of the American worker. While this philosophy may be tenable during periods of prosperity, it is difficult to maintain in a time of deep depression. The author has well traced the breakdown of voluntarism, the defections of many of its ardent exponents, and the gradual conversion of the American Federation of Labor to a policy of government intervention. He has not, however, fully accounted for the change. It seems, at least to the reviewer, that voluntarism can only be maintained in an era of full or high employment. It is futile to argue for economic improvement through economic action and collective bargaining at a time when many workers have no jobs over which to bargain. In the face of millions of idle the most resolute voluntarist must hesitate in urging abstention of government intervention. Faced by the Great Depression, the American Federation of Labor finally endorsed the principle of unemployment insurance as well as other forms of social insurance. Even a minimum wage for men has been approved, although the author believes that privately the leaders of the AFL were not as enthusiastic for the Fair Labor Standards act as their public declarations would lead one to assume.

Since the New Deal fewer voices have been raised in behalf of voluntarism, largely by several quasi-official philosophers. The American labor movement has prospered and grown to a size unequaled in its history. Much of the growth and prosperity has been due to government support. The split in the labor movement has, however, led to a new series of attacks upon government intervention by several of the leaders of the AFL. The attitude of the AFL in regard to government is somewhat ambivalent. It is satisfied to have government support for the right to organize, but it denounces attempts by the administrative agency to fix the bargaining unit as an unwarranted intrusion by government bureaucrats into the business of labor. The leaders of

the AFL cannot have it both ways, even though they regard government protection of labor unions as a special type of government intervention, one that is exempt from the usual criticism.

It is doubtful if the labor movement will ever return to the earlier voluntarism. This does not demonstrate that this philosophy was wrong or unsuitable for the period in which it was evolved. On the contrary, in the reviewer's opinion, it was perhaps the only policy that would have enabled labor to build the organizations that were the base from which the larger whole has since developed. Unless there is a fundamental change in the attitude of employers toward labor organizations, the protection for the right to organize will continue to be needed. While a limited labor movement does not need government support, an extensively organized one must have it to survive. Moreover, a philosophy of voluntarism is not tenable in an economy in which the government plays a major rôle, and in which it operates an extensive welfare and social program. This, as the author has shown, is recognized by many leaders of AFL unions. Father Higgins's book is a very useful and impartial study of the changing philosophy of the labor movement. In examining the growth and decline of voluntarism he has performed a useful service for all desiring to understand the labor movement.

PHILIP TAFT

Brown University

The Exploitation of Foreign Labour by Germany. (Montreal: Internat. Labour Office. 1945. Pp. 286. \$1.50.)

One of the outstanding aspects of the Second World War, the systematic exploitation of foreign labor through Europe by the Nazis, has been carefully recorded and summarized by the International Labour Office in its regular periodicals and recently in an excellent study, *The Exploitation of Foreign Labour by Germany*. This study describes recruitment methods, working and living conditions, wage regulations, measures to counteract foreigners' resistance and also indicates how the families of foreign laborers fared while the breadwinners were away.

Despite the wartime difficulties of obtaining information, the Nazis' vast scheme of European-wide labor mobilization is reported in fairly good detail. Wide use has been made of direct German sources, including the handbook for the guidance of German public employees dealing with foreign workers; the official gazettes in which legislation was published, the publications of the Reich Ministry of Labor and the Offices of the Four-Year Plan, the Commissioner General for Manpower and the German Labor Front. Periodicals and newspapers from Germany and occupied countries were systematically used. Additional facts were also supplied by governments of the United Nations and of liberated countries. Lastly, the International Labour Office has used its own branch offices and its correspondents in various allied and neutral countries. Mr. John H. E. Fried, who prepared the study, has used German sources with caution, realizing that such sources would naturally attempt to conceal some issues or to place the situation in general in a favorable light.

According to this study, one of the first steps taken by the Nazis after conquering a particular territory was to install labor offices or adapt those already in existence in order to facilitate the recruitment of workers. Their methods of mobilization were shrewdly planned and ruthlessly carried out. Even before hostilities actually started in 1939, Austrians and Czechoslovaks had already been added to the labor force of the old pre-1938 Reich. As the Nazi tide of conquest rolled onwards, almost the whole of Europe was brought within the orbit of exploitation. The number of people affected ran into the millions—the ILO's conservative estimate is 30 to 35 million people, counting dependent family members.

The conditions of life and labor varied considerably, according to place, type of employment, phase of the war, and particularly nationality. Those from the East were treated worst of all; those from other parts of Europe received less inhuman treatment for the most part. The general disregard of human life only served to aggravate the scarcity of manpower while the cumulative result of persistent compulsion required still greater supervision and repression of the foreign labor recruits. An air of legality was given to the recruiting by the negotiation of bilateral agreements wherever possible with the authorities of occupied countries. Modern scientific methods of mass administration, mass organization and mass propaganda were employed in an attempt to obtain recruits. Since those who refused to register voluntarily for work in, or for, Germany experienced much difficulty in obtaining any other employment or in purchasing food or other commodities which were rationed, the pressure to register must have been great. Nonetheless, the number of volunteers was small; compulsion had to be used widely. To their best ability, and often at the cost of their lives, the conscripts and their families resisted participation in German war work.

The compulsory mobilization of the civilian population under wartime occupation is almost without precedent in modern times. Similarly extreme forms of forced or compulsory labor, though never on such a large scale, have been used in recent times in so-called backward and colonial regions. Before World War I atrocities were exposed in the Congo Free State, the French Congo, the "cocoa islands" of Portugal and the Putumayo district lying between Colombia and Peru—the numbers involved, however, ran in the thousands rather than the millions as was true in the case of the Nazi exploitation. Still later, in World War I, the Germans deported Belgian workers for a short time, but ways were found to stop this deportation. Even so, according to James T. Shotwell, an expert observer writing ten years afterwards, the scheme had "considerable consequences for the Belgian people as a whole because their physical and social conditions were affected by it during and after the war."

Many problems raised by the Nazi mass displacement and exploitation of labor have already had to be solved or are being met. This study should be extremely useful to UNRRA officials and others who are presently attacking the problem of transferring and repatriating foreign workers. The facts contained in this report should also prove useful to the government and private organizations concerned with such questions as the debt incurred by Ger-

many through wage transfers within the framework of the German wartime clearing system; the amounts of money belonging to foreign workers deposited in frozen accounts in German banks or invested in German savings bonds; and extent of the needed program to help dependents of those workers who did not survive the harsh treatment and heavy work measures.

MAXINE SWEETZ WOOLSTON

Conshohocken, Pa.

Lumber and Labor. By VERNON H. JENSEN. (New York: Farrar and Rinehart. 1945. Pp. 314. \$3.00.)

The Cotton Mill Worker. By HERBERT J. LAHNE. (New York: Farrar and Rinehart. 1944. Pp. 303. \$3.00.)

The Printing Trades. By JACOB LOFT. (New York: Farrar and Rinehart. 1944. Pp. 301. \$3.00.)

These books, with their companion volumes in the series "Labor in Twentieth Century America," are intended to further the writing of "a definitive history of the men and women who have worked for a living in the nation's major fields of production" (editor's Foreword). They are histories of the workers in the lumber, cotton textile, and printing industries, and not merely studies of the trade unions in those industries. The story of trade union organization is silhouetted against the economic structure of the industry, the characteristics of the workers employed, and the changes in their conditions of life and work since 1900. Thus Dr. Lahne, before entering on a discussion of cotton textile unionism, presents twelve chapters on such matters as the growth of the industry, the mill village system in New England and the South, interregional competition in the industry, the working family and its income, hours of work, work loads, and the problem of the "stretch-out." The chapter on interregional competition and the concluding chapter on the organizability of the industry are particularly interesting pieces of analysis.

The arrangement and emphasis of Dr. Loft's study is very similar. The bulk of the volume consists of chapters on the economics of printing, competition and industrial migration, the impact of technical progress, changes in wages and earnings, hours, shop rules, and similar matters. The concluding chapters sketch the development of labor and employer organizations and of the relations between them. Dr. Jensen's book approximates more closely a history of trade unionism. Two introductory chapters on the development of the industry are followed by a brief survey of labor conditions and labor organization in each of the four historic lumbering regions. The remainder of the volume is devoted to the growth and operation of unionism in the Pacific Coast states which now dominate the lumber industry.

These volumes are welcome innovations in labor literature and are assured of a place of permanent usefulness. In point of style, they suffer somewhat from inclusion in the text of facts and figures which might perhaps have been compressed into tables, footnotes or appendixes. The reader frequently finds himself wandering in a maze of detail with little sense of general direction. This defect of presentation, however, can be forgiven in view of the authors' care and diligence in accumulating factual material from a wide

variety of sources. The thorough footnoting and extensive bibliographical notes will make the volumes particularly helpful to those contemplating more specialized studies of labor problems in these industries. The chapters on the growth of union organization are marked by a careful marshalling of facts and a high level of objectivity.

The structure of all three studies is basically chronological and descriptive, with relatively little use of formal economic analysis. The outstanding economic problems confronting trade unionism in these industries stand out inevitably from a chronological account. Examples are the North-South wage differential in textile and its effect on industrial location, the migratory and highly competitive character of the lumber industry, and inter-area competition among job printing firms resulting from differentials in wage rates and total unit costs. One does not find in these volumes, however, a precise analysis of the possible lines of attack on these problems, nor even a complete discussion of the policies actually adopted by trade unions and the economic consequences of these policies.

This kind of analysis, of course, was not within the purview of the series and would have required volumes of much greater length. The authors set out to describe a wide area of industrial experience for a general audience and using a historical frame of reference. This task has been well done, and the volumes cannot fairly be criticized for not doing things which they did not attempt. It is necessary to point out, however, that the economist who uses the tools of market analysis will find here mainly clues and raw material rather than conclusions. These vivid cross sections of working-class experience, drawing flavor and realism from the close personal observation of the authors, suggest the rich variety of problems which await further exploration by students of labor.

LLOYD G. REYNOLDS

Yale University

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David Kinley

1861-1944

Doctor David Kinley died on December 3, 1944, in Urbana, Illinois. He was born on August 2, 1861 in Dundee, Scotland, and came to the United States with his father in 1872. His preliminary training was obtained at Phillips Academy at Andover, Massachusetts, from where he went to Yale. After graduation from that university with an A.B. degree he became the principal of the North Andover High School. He held this post for six years and in 1890 went to Johns Hopkins to study for his Master's and Doctor's degrees; these studies were carried on mainly under Professor Richard Ely. When two years later the latter was called to the University of Wisconsin, he invited Kinley to go with him, because, as Ely put it, "he knew Kinley's capacity for thought would make him an excellent pace setter for graduate students." Subsequent events proved the correctness of Ely's estimate of Kinley's mentality and his ability to inspire and to lead students. Any one who sat in on the economic seminars conducted by Dr. Kinley at Illinois could not have failed being impressed by the brilliancy of his intellect, by his quick evaluation of facts versus opinions, by his constructive criticisms, by the way he could arouse the student's interest in fundamentals, by his kindly and wise council. Kinley was a great teacher, though this accomplishment was overshadowed in later years by his organizing and administrative ability.

It was from the University of Wisconsin that Kinley obtained his Ph.D. degree; his dissertation dealt with the history, organization and influence of the Independent Treasury of the United States. During his second year at Johns Hopkins Kinley served there as an assistant and he also taught at the Women's College in Baltimore. He held a fellowship and assistantship at Wisconsin.

In 1893 Kinley came to Illinois as an assistant professor of economics; in the following year he was made a full professor and the head of the department, which position he held until 1915. In 1894 he was also appointed the Dean of the College of Literature and Arts.

It was the administrative genius of Dr. Kinley which took him gradually away from research, from systematic writing and teaching. Already in 1904 in the introduction to his book on *Money* he spoke of the harassing incidents of his administrative work and expressed the doubt whether he would have had the patience to finish the task if it were not for the encouragement and help of his friends.

As the years went by Kinley's administrative responsibilities had been increasing. He went from the Deanship of the Literature and Arts College to that of the Graduate School, having held concurrently the Directorship of the courses of Training for Business, which he later organized into a

College of Commerce and Business Administration; he then became the Vice-President, the Acting President and finally in 1920 the President of the University. He devoted himself with singleness of purpose and indomitable energy to the upbuilding of the University of Illinois and under his able leadership it became one of the leading institutions of learning in the country and Dr. Kinley grew in stature with it as one of the soundest educational thinkers in the land. His genius guided the University successfully through some of the most difficult years of its existence; but the gain to the educational system of the state and the nation was a distinct loss to economic science and to the teaching profession.

In 1897 Kinley married Kate Ruth Neal, whose gracious manners and charming personality endeared her to all those who learned to know her. She died in 1931 in Hong Kong while accompanying Dr. Kinley on a trip to the Orient in the interests of the Chicago Centennial Exposition. The loss of his congenial life partner was a severe blow to Kinley from which he seemed never to have fully recovered.

Kinley's main field of interest in economics was money and banking. The first edition of his book on *Money* with a subtitle, *A Study of the Theory of the Medium of Exchange*, was preceded by the works of Professors Laughlin and Scott which appeared a year earlier and with whose views on the influence of credit and on the relation of the quantity of money to its value Kinley disagreed. Kinley's book was quickly recognized as a very thought-provoking and able presentation of the problem and it continued to be considered as a standard treatise on the subject and used as such for over a quarter of a century; it has been translated twice into the Chinese language.

When, following the panic of 1907, a national monetary commission was created Kinley was asked to prepare for it two monographs, one dealing with "The Independent Treasury of the United States and Its Relation to the Banks of the Country" and the other on "The Use of Credit Instruments in Payments in the United States." In the latter work he continued the studies which he made conjunctive with the Comptroller of the Currency and some other investigators in 1896. He drew some valuable conclusions regarding the effect of credit transactions on the level of prices.

In 1909 Kinley was asked by Professor Patton to serve as chairman of a committee to consider the enlargement of the *Economic Bulletin* and the unification of the publications of the American Economic Association. As a result of the committee's findings there was launched the *American Economic Review*.

From 1906 to 1907 Kinley was a member of the Illinois Industrial Insurance Company. In 1910 and again in 1930 he served as a member of the Illinois Tax Commission.

In 1910 the government appointed him a delegate to the Fourth International Conference of American States at Buenos Aires and also an envoy on special mission to Chile to represent the United States at the Centennial of Chilean Independence. In 1915 Kinley was a delegate to the second Pan American Scientific Congress held in Washington, D.C. From 1913 to 1932 he was

a member of the Committee on Research, in the Division of Economics and History, Carnegie Endowment for International Peace and he acted as the editor of the Preliminary Economic Studies of the First World War carried on under the auspices of the Endowment. He was a member of other committees too numerous to mention. His interest in communal affairs was perhaps best exemplified by a most active part which he took in helping to reopen the First National Bank of Champaign which had to close its doors due to an unwarranted run on the bank. In 1932 he was elected Chairman of the Board of Directors of the bank and remained in this capacity for eight years.

Dr. Kinley's economic views were largely colored by the ideas of the classical school; he realized that the economic world had moved since the days of Smith, Ricardo and Mill, but he contended that fundamentals have not changed and in his theoretical concepts he remained a more or less close adherent to the views expressed by the classical economists; his warnings against the ever increasing control of economic and other activities by federal authority, though expressed repeatedly in his various speeches and writings, were perhaps best summarized in his presidential address before the American Economic Association in 1914, when thirty years ahead of Professor Hayek's book, *The Road to Serfdom*, he warned that, since the government has been recognized as having a right to regulate economic conditions, it will be pushed by the ruling classes toward regulation or control of the rights of others in politics, religion and in other ways. He felt that the destruction of individual freedom was a high price to pay for a temporary or perhaps even a permanent increase in economic welfare; according to him such welfare could be attained without so great a sacrifice.

In 1936 there appeared a book containing some of the most important addresses and papers written by Dr. Kinley while he was President of the University and since he became President Emeritus. It covers a wide variety of topics from Trusts and the Fallacy of the Commodity Dollar to Academic Freedom, Democracy and Scholarship, and The Relation of the Church to Social Reform. As one reads one paper after another one become ever increasingly aware of the straight-forward thinking of the man, of his keen analysis of the problems under discussion, of his clear presentation of the issues, of his wisdom and vision.

Dr. Kinley was never sparing of himself, always assuming heavy tasks and seeing to it that they should be carried out, however difficult and unpleasant they may have been. He was a determined fighter for what he considered just. On one of my last visits at the hospital, just a few weeks before Kinley's death, I found him reading Professor Ely's autobiography. Feeble as he was, sitting slumped in a large chair, too large for his emaciated body, he showed me certain passages in Ely's book. With pride and with some of the fire which often illuminated his face in former years he spoke of the way he carried on to successful conclusion the defense of Ely, who was ill at the time, against the attacks of the Wisconsin Superintendent of Education who accused Ely of radicalism, of economic "heresy," of encouraging strikes and practicing boycotts.

Kinley died as he lived, misunderstood and disliked by some because of his seeming aloofness, of what was described as his ultra-conservatism and because of the blunt way in which he at times expressed himself without mincing words; but respected and admired by many, even by those who not always agreed with him, for his intellectual integrity, his indomitable energy, his unflinching courage, his capacity for work, his unwillingness to sacrifice principles on the altar of expediency, his belief in the dignity of man and his almost passionate plea for the preservation of the freedom of the individual against the encroachment of power, whatever the source of that power may be.

SIMON LITMAN

University of Illinois

NOTES

FIFTY-EIGHTH ANNUAL MEETING OF THE AMERICAN ECONOMIC ASSOCIATION

Cleveland, Ohio—January 24 to 27, 1946

Preliminary Announcement of Program

The fifty-eighth annual meeting of the American Economic Association will be held in Cleveland, beginning Thursday evening, January 24, and ending Sunday afternoon, January 27, 1946.

At the time of the spring meeting of the Executive Committee prospects for a national meeting were so discouraging (at the least, so uncertain) that no definite plans were adopted. Determination of time and place of meeting, with authority to cancel the annual meeting altogether, was left to the President and the Secretary. When the ban on conventions was lifted in September, it was decided to revive the cancelled arrangements of 1942 at Cleveland.

We acted independently, however, and are not planning joint meetings with the other members of the social science group. At this late date it was not feasible to delay the preparation of our own program in order to explore the possibilities of such joint meetings; and there was also considerable sentiment among the membership that a separate meeting of the Association at this juncture would be salutary. After our plans were announced a number of organizations decided to meet at the same time and place. These now include the American Statistical Association, the American Finance Association, the Economic History Association, the Econometric Society, and the American Association of University Teachers of Insurance. In the final issue of the program some of our sessions may appear under joint sponsorship with some of these organizations; but they will be joint only in a formal way, and our own Association assumes full responsibility for its entire program.

The dates chosen for the meetings are largely the result of circumstances beyond our control. The likelihood of extra-heavy pressure upon transport facilities and hotel accommodations during the Christmas holidays virtually limited our choice to the dates actually adopted. With the rather complicated university calendars which now prevail—including not only semester and quarter systems but odd periods dictated by military programs—and with vacations sharply curtailed at many institutions, no dates would have fit all schedules. Since this will be our first meeting on a national scale in four years, it is hoped that members will decide to attend even though it may mean coming on "company time."

All our meetings will be held at Hotel Cleveland, where a limited number of rooms have been reserved for our use for the period of the meetings. *It is urgent that individual reservations be made early.* This hotel will also serve as our headquarters. Other hotels—the Statler, the Hollenden, and the Carter—are within easy reach. Local arrangements are being made by Mr. Daniel A. Hill (1400 Hanna Building), assisted by Dr. Russell Weisman (Western Reserve University).

The following program was arranged by President I. L. Sharfman, with the assistance of some key participants and various Association committees in charge of some of the scheduled round tables. The gaps still remaining are indicated in this preliminary issue. The final issue of the program will be available for distribution at the time of registration.

The Executive Committee plans to meet all day Thursday, January 24, but the opening session—a round table on the problem of "full employment"—will be held Thursday evening. On Friday three sessions will be held concurrently in the morning and afternoon,

in addition to a Luncheon Meeting and the evening session for the Presidential Address. On Saturday there will be three concurrent sessions in the morning, afternoon, and evening, and also a Luncheon Meeting. Sunday morning and afternoon are each reserved for a single round table deemed to be of interest to the entire membership.

It will be noted that a mixed program, covering a considerable variety of subjects, has been arranged. The emphasis is placed upon matters of public policy in crucial and representative directions, but attention is also given to the interpretation of recent economic history, the development of economic thought, and the analysis of economic conditions. As far as possible opportunity has been afforded for the presentation of conflicting viewpoints.

The following scheduled round tables are in charge of Association committees, through their chairmen: Monetary Policy (James W. Bell); Publication of an Annual Review of Economics (Joseph J. Spengler); Agricultural Price Supports (Elmer J. Working); Economic Research (Simeon E. Leland); Consensus among Economists (Corwin D. Edwards); Teaching of Economics (Horace Taylor).

Thursday, January 24

1. MEETING OF EXECUTIVE COMMITTEE (10:00 A.M.)
2. ROUND TABLE ON THE PROBLEM OF "FULL EMPLOYMENT" (8:00 P.M.)

Chairman: Major Paul H. Douglas, USMCR

"Facts, Issues, and Policies," Albert G. Hart, Committee for Economic Development
 "Monetary-Fiscal Policy and Employment," Alan R. Sweezy, Williams College
 "Wage-Price Policy and Employment," Sumner H. Slichter, Harvard University

Discussion: John H. G. Pierson, Department of Labor

William J. Fellner, University of California

Clark Warburton, Federal Deposit Insurance Corporation

Robert B. Bryce, Department of Finance, Ottawa, Canada

Abba P. Lerner, New School for Social Research

Edwin E. Witte, University of Wisconsin

Friday, January 25

3. THE AMERICAN ECONOMY IN THE INTERWAR PERIOD (9:30 A.M.)

Chairman: Earl J. Hamilton, Northwestern University

"The Decade of the Twenties," Joseph A. Schumpeter, Harvard University

"The Decade of the Thirties," Arthur Smithies, Bureau of the Budget

Discussion: Alexander Sachs, New York, N. Y.

Garfield V. Cox, University of Chicago

George Terborgh, Research Director, Machinery & Allied Products Institute

4. POSTWAR LABOR RELATIONS (9:30 A.M.)

Chairman: To be announced

"Public Policy in Labor Relations," William M. Leiserson, Johns Hopkins University

"Collective Bargaining in the Public Service," Joseph Mire, Economist, American Federation of State, County, and Municipal Employees

"Democracy in Trade Unions," Philip Taft, Brown University

Discussion: Herbert R. Northrup, New York University

Dexter M. Keezer, Department of Economics, McGraw-Hill Publishing Company

Charles W. Anrod, Loyola University

Mark Starr, Educational Director, International Ladies' Garment Workers' Union

Lloyd G. Reynolds, Yale University

5. ROUND TABLE ON MONETARY POLICY (9:30 A.M.)

Chairman: To be announced

A discussion of substantive problems and possible solutions suggested by monetary

questionnaires on *domestic* and *international* issues submitted to selected panels of specialists in this field by Ad Hoc Committee on Monetary Policy (Frederick A. Bradford, Benjamin H. Beckhart, Howard S. Ellis, Seymour E. Harris, Ray B. Westerfield, Leonard L. Watkins, James W. Bell, Chairman)

Topics: Commercial Bank Reserve Requirements; Government Guarantee of Loans and Financial Aid; Federal Reserve Credit Control and Extension of Powers; Relation of Federal Reserve System to the Treasury; Government Ownership and Operation of Banks; Monetary Effects of Public Debt Policy; 100% Reserve Money; Determining Postwar Exchange Parities; Exchange Controls and Domestic Business Fluctuations; Extent to which a Nation Can Permit Freedom of International Payments; Blocked Sterling Balances; Lend-Lease and Foreign Loans and Investments.

Participants, including some members of the Committee, will present opening statements and brief discussion reports on selected topics.

6. LUNCHEON MEETING (12:30 P.M.): Speaker and subject to be announced

7. THE CHANGING STRUCTURE OF THE AMERICAN ECONOMY (2:30 P.M.)

Chairman: Robert D. Calkins, Columbia University

"Shifts in the Geographical and Industrial Pattern of Economic Activity," Blair Stewart, Reed College

"Significant Changes in Commodity and Labor Markets," Richard B. Heflebower, Brookings Institution

"The New Debt Structure," Lawrence H. Seltzer, Wayne University

Discussion: Glenn E. McLaughlin, War Production Board

Francis M. Boddy, University of Minnesota

Ewald T. Grether, University of California

Donald B. Woodward, Research Assistant to the President, Mutual Life Insurance Company of New York

Ralph A. Young, National Bureau of Economic Research

8. ECONOMIC PROBLEMS OF FOREIGN AREAS (2:30 P.M.)

Chairman: To be announced

"Economic Reconstruction in the Far East," Charles F. Remer, University of Michigan

"The Financial Position of China and Japan," Frank M. Tamagna, Federal Reserve Bank of New York

"Trends and Conflicts in the British Economy," Mary E. Murphy, Hunter College

Discussion: John D. Sumner, Department of State

Horace Belshaw, Institute of Pacific Relations

Warren S. Hunsberger, Department of State

Lloyd A. Metzler, Board of Governors of Federal Reserve System

Donald F. Heatherington, Department of Commerce

9. ROUND TABLE ON PUBLICATION OF AN ANNUAL REVIEW OF ECONOMICS (2:30 P.M.)

Chairman: Eveline M. Burns, New York, N. Y.

Participants: Donald H. Wallace, Office of Price Administration

Edward S. Mason, Harvard University

Joseph S. Davis, Stanford University

Morris A. Copeland, National Bureau of Economic Research

Albert B. Wolfe, Ohio State University

E. A. Goldenweiser, Board of Governors of Federal Reserve System

Norman S. Buchanan, Twentieth Century Fund

Seymour E. Harris, Harvard University

Simeon E. Leland, University of Chicago

Aryness Joy Wickens, Department of Labor

Corwin D. Edwards, Northwestern University

Joseph J. Spengler, Duke University

10. PRESIDENTIAL ADDRESS (8:00 P.M.)

Saturday, January 26

11. NEW FRONTIERS IN ECONOMIC THOUGHT (9:30 A.M.)

Chairman: Albert B. Wolfe, Ohio State University
 "Immutable Law in Economics and its Limitations," Frank H. Knight, University of Chicago

"The Impact of the Great Depression," Clarence E. Ayres, University of Texas
 "The Impact of Total War," Ralph H. Blodgett, University of Illinois

Discussion: Edward H. Chamberlin, Harvard University
 Herbert von Beckerath, Duke University
 David McCord Wright, University of Virginia
 Victor Abramson, Office of Alien Property Custodian
 Abram L. Harris, Howard University
 John Kenneth Galbraith, Board of Editors, *Fortune Magazine*

12. ROUND TABLE ON POSTWAR SHIPPING POLICY (9:30 A.M.)

Chairman: To be announced

"The Wartime Merchant Fleet and Postwar Shipping Requirements," Hobart S. Perry, United States Maritime Commission

"United States Shipping Policy and International Economic Relations," Henry L. Deimel, Jr., Department of State

"The Determination of Postwar Ocean Freight Rates," Daniel Marx, Jr., Dartmouth College

Discussion: Ralph H. Hallett, United States Maritime Commission
 John G. B. Hutchins, Cornell University
 Others to be announced

13. ROUND TABLE ON MONOPOLY AND COMPETITION (9:30 A.M.)

Chairman: Frank A. Fetter, Princeton, N. J.

"The Outlook for Effective Competition," George P. Comer, Department of Justice

"An Appraisal of Anti-Trust Policy," Corwin D. Edwards, Northwestern University

"How Far is Government Intervention Consistent with Anti-Trust Policy?"
 Mordecai Ezekiel, Department of Agriculture

Discussion: Thurman Arnold, Washington, D. C.
 Vernon Mund, University of Washington
 Emerson P. Schmidt, United States Chamber of Commerce
 Theodore O. Yntema, Committee for Economic Development

14. LUNCHEON MEETING (12:30 P.M.): Speaker and subject to be announced

15. POSTWAR RAILROAD PROBLEMS (2:00 P.M.)

Chairman: Eliot Jones, Stanford University

"The Maintenance of Railroad Credit," Ralph L. Dewey, Iowa State College

"The Reorganization of the Railroad Rate Structure," D. Philip Locklin, University of Illinois

"The Interstate Commerce Commission, the Department of Justice, and the Supreme Court," Elmer A. Smith, Senior General Attorney, Illinois Central System

Discussion: W. H. S. Stevens, Interstate Commerce Commission
 Harold D. Koontz, Coordinator of Planning, Transcontinental & Western Air, Inc.
 Edwin H. Burgess, Chairman of Traffic Executive Association—Eastern Territory, New York, New York
 Robert W. Harbeson, Interstate Commerce Commission
 Irston R. Barnes, Civil Aeronautics Board
 James C. Nelson, Department of Commerce

16. ROUND TABLE ON INTERNATIONAL INVESTMENT (2:00 P.M.)

Chairman: Howard S. Ellis, University of California

"Foreign Investment and Employment," Randall W. Hinshaw, Board of Governors of Federal Reserve System

"The Effects of Foreign Investment on the Domestic Economy of the United States," Hal B. Lary, Department of Commerce

"Control of International Capital Movements: Objectives and Techniques," Arthur I. Bloomfield, Federal Reserve Bank of New York

Discussion: Norman S. Buchanan, Twentieth Century Fund

J. J. Polak, United Nations Relief and Rehabilitation Administration

Leroy D. Stinebower, Department of State

17. ROUND TABLE ON AGRICULTURE PRICE SUPPORTS (2:00 P.M.)

Chairman: John B. Hutson, War Food Administration

Papers: John D. Black, Harvard University

Elmer J. Working, University of Illinois

Discussion: Theodore W. Schultz, University of Chicago

Merrill K. Bennett, Stanford University

John M. Gaines, Buffalo, N.Y.

Oscar C. Stine, Department of Agriculture

Theodore O. Yntema, Committee for Economic Development

18. ANNUAL BUSINESS MEETING (5:00 P.M.)

19. RECENT DEVELOPMENTS IN PUBLIC UTILITY REGULATION (8:00 P.M.)

Chairman: To be announced

"State Regulation in Depression and War," Ben W. Lewis, Oberlin College

"Rate Regulation by the Federal Power Commission," Nelson Lee Smith, Federal Power Commission

"Rate-Making Policies of Federal Power Projects," James C. Bonbright, Columbia University

Discussion: Clyde O. Fisher, Connecticut Public Utilities Commission

Archibald M. McIsaac, Princeton University

Edward W. Morehouse, New York, N.Y.

Leslie T. Fournier, Securities & Exchange Commission

Martin G. Glaeser, University of Wisconsin

Walton Seymour, Tennessee Valley Authority

20. ROUND TABLE ON INTERNATIONAL CARTELS (8:00 P.M.)

Chairman: Corwin D. Edwards, Northwestern University

"The Relation between Cartel Policy and Commodity Agreement Policy," Bernard F. Haley, Stanford University

"The International Corporate Combine and the National State," Walton Hamilton, Yale University

"The International Exchange of Technology," Robert Terrill, Department of State

Discussion: Vincent Bladen, University of Toronto

Fritz Machlup, Office of Alien Property Custodian

Robert B. Schwenger, Department of Agriculture

Floyd L. Vaughn, University of Oklahoma

21. ROUND TABLE ON ECONOMIC RESEARCH (8:00 P.M.)

Chairman: Simeon E. Leland, University of Chicago

"Developments Concerning the National Research Foundation," Edwin G. Nourse, Brookings Institution

"The Preservation and Use of Wartime Records"

Harold B. Rowe, Brookings Institution

Saul Nelson, War Production Board and Conference on Price Research
Others to be announced

Sunday, January 27

22. MEETING OF EXECUTIVE COMMITTEE (9:00 A.M.)

23. ROUND TABLE ON METHODS OF FOCUSING ECONOMIC OPINION ON QUESTION OF PUBLIC POLICY (10:00 A.M.)

Chairman: Frederick C. Mills, Columbia University

Report of Ad Hoc Committee on Monetary Policy, James Washington Bell, Northwestern University

Report of Ad Hoc Committee on Agricultural Price Supports, Elmer J. Working, University of Illinois

Report of Committee on Consensus and Recommendations as to Association Policy, Corwin D. Edwards, Northwestern University

Discussion: Frank D. Graham, Princeton University

Charles O. Hardy, Federal Reserve Bank of Kansas City

24. ROUND TABLE ON THE UNDERGRADUATE TEACHING OF ECONOMICS (2:30 P.M.)

Chairman: To be announced

Participants: Horace Taylor, Columbia University

Mabel Newcomer, Vassar College

E. E. Hale, University of Texas

Albert B. Wolfe, Ohio State University

Others to be announced

The following persons have recently been added to the membership of the AMERICAN ECONOMIC ASSOCIATION:

Adelman, Lt. M. A., 931 Longfellow St., N.W., Washington 11, D.C.

Allredge, Capt. R. B., Hq. 8th AAC, Inspector Generals Dept., A.P.O. 343, c/o Postmaster, San Francisco, Calif.

Anderson, R. E., 3922 Oliver St., Chevy Chase 15, Md.

Babson, P. T., 210 Newbury St., Boston 16, Mass.

Bennett, M. K., Food Research Institute, Stanford University, Calif.

Bourne, R. M., University of Nebraska, College of Bus. Admin., Lincoln, Neb.

Burley, O. E., University of Pennsylvania, Wharton School, Philadelphia 4, Pa.

Carlson, Miss M. V., 2720 Wisconsin Ave., N.W., Washington 7, D.C.

Chung-Hwai Li, P., 4 Willow St., Brooklyn, N.Y.

Clark, Lt. Comdr. E. H., University Club, Washington, D.C.

Cohen, Miss E., 2078 62nd St., Brooklyn 4, N.Y.

Criz, M., 840 S. Barton St., Arlington, Va.

de Bessieres, A. E., Box 83, Tex. Tech. Branch P. O., Lubbock, Tex.

DeVoe, M., 1139 New Hampshire Ave., Washington, D.C.

Dewey, Major L. E., 5127 11th Rd. S., Arlington, Va.

Dewey, Mrs. L. E., 5127 11th Rd. S., Arlington, Va.

Duffy, J. F., Jr., P.O. Box 911, Marin City, Calif.

Ellickson, J. C., 3420 McKinley St., N.W., Washington 15, D.C.

Ellickson, Mrs. K. P., 3420 McKinley St., N.W., Washington 15, D.C.

Elliott, Mrs. R. F., Box 500, Plains, Tex.

Fetzer, J. C., 318 Ferson Ave., Iowa City, Iowa

García, O. S., 21 No. 107, Apt. 6, Vedado, Havana, Cuba

Gardescu, Mrs. S., 1243 30th St., N.W., Washington 7, D.C.

Goldsen, J. M., 35 W. 69th St., New York 23, N.Y.

Gordon, N. N., 4314 4th St., N, Arlington, Va.

Hallowell, E. W., 125 Forrester St., S.W., Washington 20, D.C.

- Hawley, Lt. L. T., Staff, Commander Second Carrier, Task Force, c/o Fleet Post Office, San Francisco, Calif.
- Hershman, Miss C., 1327 52nd St., Brooklyn 19, N.Y.
- Hogan, Rev. W. T., Woodstock College, Woodstock, Md.
- Hopkins, K. B., 420 Lexington Ave., New York 17, N.Y.
- Jacobsen, A. D., University of Redlands, Dept. of Econ., Redlands, Calif.
- Jensen, C. P. N., 1505 Archer Rd., 10A, New York 62, N.Y.
- Kandyba, B. S., 2051 W. Grand Blvd., Detroit 8, Mich.
- Keim, W. G., 5059 MacArthur Blvd., N.W., Washington 16, D.C.
- Kirkpatrick, Mrs. A. L., 1717 Columbia Rd., N.W., Washington 9, D.C.
- Knox, N. B., 247 Delaware Ave., S.W., Apt. 110, Washington, D.C.
- Kyler, R. H., Luther College, Decorah, Iowa
- Laursen, S., 1829 Summit Pl., N.W., Washington 9, D.C.
- Loverdos, A., 30 Rockefeller Plaza, New York 20, N.Y.
- MacGowan, T. G., 214 Merriman Rd., Akron 3, Ohio
- McCalley, J. W., 1900 F St., N.W., Apt. 702, Washington 6, D.C.
- McDonald, R. W., 39 Claremont Ave., New York 27, New York
- Mears, C. D., 623 Oneida Pl., N.W., Washington 11, D.C.
- Meehling, C. F., 332 E. 90th St., New York 28, N.Y.
- Miller, P. F., 129 Montgomery Ave., Bala-Cynwyd, Pa.
- Morgenstern, O., Princeton University, Dept. of Econ., Princeton, N.J.
- Mumford, Miss M. B., Wisconsin Citizens' Public Expenditure Survey, 340 Washington Bldg., Madison 3, Wis.
- Nelson, Pvt. R. S., 33959327, Hq. Det. AFWESPAC, A.P.O. 707, c/o Postmaster, San Francisco, Calif.
- Neustadt, Lt. R. E., Admin. Plan. Div., Code OL, Navy Dept., Bur. of Sup. and Accts., Washington 25, D.C.
- Nicholaus, H. A., Lake Forest College, Lake Forest, Ill.
- Nurkse, R., Institute for Advanced Study, Princeton, N.J.
- Peppard, Lt. J. F., Hq. ATSC, TSBRE-7, Area B., Wright Field, Ohio
- Peradotto, L. B., 309 10th Ave., San Francisco 18, Calif.
- Planting, M. P., 20 W. 36th St., Apt. 507, Kansas City 2, Mo.
- Prather, Dr. C. L., 926 Westmoreland Ave., Syracuse 10, N.Y.
- Pullen, R. W., 20 College Ave., Waterville, Me.
- Quirk, Rev. C. B., 869 Lexington Ave., New York 21, N.Y.
- Radvanyi, Dr. L. Donato Guerra 1, desp. 207, Mexico, D.F.
- Reuss, Dr. F. G., 3017 Wayne Ave., Baltimore 7, Md.
- Roberts, T., 1100 Walnut St., Philadelphia 7, Pa.
- Roberts, W. A., 140 Moncure Dr., Alexandria, Va.
- Robinson, R. I., 5327 Flint Dr., Washington 16, D.C.
- Rolph, E. R., University of California, Dept. of Economics, Berkeley, Calif.
- Samoore, A. S., Illinois College, Jacksonville, Ill.
- Schaffner, Dr. P. P., 8005 Eastern Ave., Apt. 308, Silver Spring, Md.
- Schultz, R. S., III, Econometric Institute, 500 5th Ave., New York 18, N.Y.
- Schwartz, Lt. R. J., c/o Joseph Schwartz, 390 Riverside Dr., New York 25, N.Y.
- Shister, J. Syracuse University, Dept. of Econ., Syracuse, N.Y.
- Shugg, Dr. R. W., Alfred A. Knopf, Inc., 501 Madison Ave., New York 22, N.Y.
- Sievers, A. M., University of North Carolina, Woman's College, Greensboro, N.C.
- Smythe, L. T., South Dakota State College, Agric. Econ. Dept., Brookings, S.D.
- Torrey, Pvt. E. P., 42170562, Fiscal Office, Camp Blanding, Fla.
- Veigel, M. A., 3205 Broadview Rd., Cleveland, Ohio
- Wallace, G. S., Jr., 657 85th St., Brooklyn 19, N.Y.
- Weeks, D. H., Nebraska Wesleyan University, Lincoln, Neb.
- Weinryb, B. D., 606 W. 113th St., New York 25, N.Y.
- West, D. W., 3620 16th St., N.W., Washington 10, D.C.
- Wiberg, M., Room 811, Scanlan Bldg., Houston, Tex.
- Wigder, P., 1329 Fort Stevens Dr., N.W., Washington 11, D.C.

Yoder, F. R., State College of Washington, Pullman, Wash.

You, J. C. M., 711 Mt. Vernon Pl., N.W., Washington 1, D.C.

Zeisel, H., McCann-Erickson, 50 Rockefeller Plaza, New York 20, N.Y.

Lawrence Flinn of the University of North Carolina at Chapel Hill was killed in action in Germany, March 18, 1945.

Harold S. Patton was killed in a motor accident in Washington, D.C., on September 1, 1945. He had been on leave of absence as professor of economics and head of the department of economics at Michigan State College since March, 1943, and was serving, with the rank of Lieutenant Colonel, as chief of the foreign fiscal affairs branch of the Army service forces headquarters.

Appointments and Resignations

Walter S. Adams has accepted a temporary appointment as part-time instructor in the department of economics at the University of Illinois.

Hugh E. Agnew, professor emeritus of marketing at New York University, taught courses in advertising during the autumn quarter at the Ohio State University.

H. K. Allen has returned from his service with the Office of Price Administration in Springfield, Illinois, to the position of professor of economics and director of the Bureau of Economics and Business Research at the University of Illinois.

Richard M. Alt has been appointed lecturer in economics at Princeton University.

Clay J. Anderson has resigned as acting dean and chairman of the division of social studies, Central Missouri State College, to take a position as financial economist of the Federal Research Bank of St. Louis.

Don S. Anderson, associate professor of agricultural economics at the University of Wisconsin, has resumed his teaching and research at the university after having been on leave of absence the past three years, first serving as price executive in charge of the Poultry, Egg, and Dairy Branch of the Office of Price Administration and later as economic adviser to the chief in charge of poultry, egg, and dairy products of the War Food Administration.

James W. Angell is now serving on the Reparations Commission in Berlin, while on leave of absence from Columbia University.

Robert B. Bangs, formerly of the Department of Commerce and more recently a Lieutenant in the Army Air Forces, has joined the department of economics at Indiana University as assistant professor of economics.

James E. Barron, recently industrial relations expert in the War Department, has been appointed instructor in economics at Louisiana State University.

Grace Beckett of the department of economics at the University of Illinois has been advanced from the rank of associate to that of assistant professor.

J. F. Bell has relinquished his duties as acting director of the Bureau of Economic and Business Research at the University of Illinois and is devoting his full time as professor of economics.

Richard F. Behrendt, who has been for the past two years director of the Graduate Institute of Social and Economic Research and professor of economics and sociology of the Inter-American University in Panama, has been named associate professor of international affairs at Colgate University.

Alvin B. Biscoe was appointed dean and professor of economics, College of Business Administration, University of Georgia, on July 1. He was formerly vice chairman and public member of the Fourth Regional War Labor Board and continues as a part-time member of the Board.

Henry Simon Bloch has joined the staff of the Division of Tax Research of the Treasury Department.

Ralph H. Blodgett has been advanced from associate professor to professor of economics at the University of Illinois.

Karl A. Boedecker, formerly of the University of Wisconsin, is now assistant professor of economics in the School of Business Administration, University of Tennessee.

Karl F. Bode, who was granted leave from Stanford University in December, 1944, to serve with the American Air Force Evaluation Board, E.T.O., is now on the staff of the United States Army Trade and Commerce Division, U. S. Group Control Council in Berlin.

R. Preston Brooks, formerly dean of the College of Business Administration, became Dean of Faculties of the University of Georgia on September 1, 1945.

Douglas S. Brown has accepted an appointment as instructor in economics of the School of Business at Temple University.

George Hay Brown has been promoted to associate professor of marketing in the School of Business, University of Chicago.

O. H. Brownlee has been advanced from research associate to assistant professor of agriculture economics at Iowa State College.

L. F. Brush, instructor in accounting at Louisiana State University, has resigned to accept an appointment as assistant professor at Syracuse University.

Louis F. Buckley, Graduate School of Social Science, The Catholic University of America, has been granted a leave of absence to teach at the U. S. Army University Division, Biarritz, France.

Roy J. Bullock of the Johns Hopkins University has accepted an appointment with the U. S. Group Control Council and will be in Germany for several months.

Louis Bultena has been appointed assistant professor in the department of economics and sociology of the University of Wyoming.

Henry A. Burd has relinquished his duties as director of the summer session at the University of Washington to give full time to his position as professor of marketing.

Orin E. Burley has resigned his position at the Ohio State University to accept a professorship in marketing at the Wharton School, University of Pennsylvania.

Arthur R. Burns has returned to Columbia University after several years' leave of absence during which he served in Washington and abroad.

Grant I. Butterbaugh is engaged in adult education work for the University of Washington during the first semester in 1945-46.

Francis J. Calkins, formerly assistant professor of business administration at the Edward N. Hurley College of Foreign and Domestic Commerce at the University of Notre Dame, has been appointed associate professor of business administration at the Robert A. Johnston College of Business Administration, Marquette University.

Lyle E. Campbell will resume his duties as professor of accounting at the School of Business Administration, Emory University, on January 1, after a three-year leave of absence for war work.

Alexander E. Cance, former head of the department of economics of Massachusetts State College who returned to academic life in 1942 to accept a wartime appointment, retired September, 1945.

John B. Canning, who has been on leave of absence from Stanford University since 1941, serving as consultant in the Department of Agriculture, Washington, has had his leave extended in order to serve as consultant and adviser on the staff of the Army's Food and Agriculture Division, United States Group Control Council in Berlin.

Reynold E. Carlson has rejoined the staff of the department of political economy at the Johns Hopkins University after serving in the armed forces for three years.

Albert E. Carson is now assistant professor of accounting in the School of Business of the University of Utah.

W. Harris Carter, Jr., has been named head of the department of economics of the University of Connecticut.

Ralph Cassidy, Jr., has been promoted from associate professor to professor of marketing at the University of California, Los Angeles.

Jack Chernick has rejoined the staff of the School of Business Administration at the

University of Minnesota as an instructor after teaching in the department of economics at the University of Manitoba for the past two years.

C. F. Chizek has been appointed associate professor of accounting in the School of Business, University of Chicago.

William C. Cleveland, associate professor of economics at Indiana University, has resumed his teaching duties after a three-year leave of absence spent in government service.

Denzel C. Cline has returned to Michigan State College as professor of economics after a leave of absence during which he served as tax research economist for the Michigan State Department of Revenue and with the staff of the Governor's Tax Study Advisory Committee.

James A. Close is acting assistant professor of economics at the University of Missouri.

Almand R. Coleman, professor of accounting at Washington and Lee University, returned to active teaching in September after service in the Army.

George Craft, formerly vice-president of the Trust Company of Georgia, has been appointed dean of the School of Business Administration of Emory University and will assume his new duties upon his release from the Naval Reserve in which he is now serving as Lieutenant.

P. C. Crafts, Jr., after forty months of duty with the Navy Supply Corps, has rejoined the firm of Donald J. Moore, Boston.

Kingsley Davis of the Office of Population Research at Princeton University has been appointed associate professor of sociology and anthropology.

Edward C. Devereux, Jr., has been appointed lecturer in sociology at Princeton University.

Merrill DeVoe has returned to the Ohio State University as an instructor in marketing after serving in that capacity at the University of Pennsylvania and as an economist with the Office of Price Administration.

E. O. Dille, professor of marketing in the School of Business Administration, University of Tennessee, was employed during the summer as consultant in the division of special studies in the Bureau of Foreign and Domestic Commerce, Washington.

Russell A. Dixon, associate professor of economics, has returned to the University of Pittsburgh after a year's leave of absence with the price adjustment division of the Pittsburgh Ordnance District.

Paul A. Dodd has been promoted from associate professor to professor of economics at the University of California, Los Angeles.

Edna Douglas, formerly of the Woman's College of the University of North Carolina, has joined the department of economics and sociology at Iowa State College as assistant professor of consumer economics.

H. M. Douty has resigned as director of the Program Appraisal and Research Division, National War Labor Board, to accept the position of director, of the labor economics staff, Bureau of Labor Statistics.

Oscar E. Draper of the College of Economics and Business, University of Washington, is teaching courses in accounting at American University, Shrivensham, England.

John T. Dunlop, after serving with the National War Labor Board and the Office of Economic Stabilization, has returned to Harvard University and been promoted to the rank of associate professor of economics.

James S. Earley, associate professor of economics at the University of Wisconsin, has resumed his teaching after a leave of absence of three years, serving as head economist of the Office of the Economic Adviser of the Office of Price Administration and later as adviser on British Commonwealth financial affairs, Division of Finance, Department of State.

Wilford J. Eiteman has been promoted to the rank of associate professor of economics at Duke University.

W. J. Fleig has returned to his position as instructor in the department of accounting at the Ohio State University after serving in the Orient as a Captain in the Army.

John Fordon, after spending the past four years with the Todd Pacific Shipyards, Inc., has resumed his duties as instructor in accounting in the College of Economics and Business at the University of Washington.

Milton Friedman, formerly of Columbia University, has joined the faculty of the School of Business Administration of the University of Minnesota as an associate professor in economics and statistics.

Fern Gleiser has been appointed professor of institution economics and management in the School of Business, University of Chicago.

Carter Goodrich recently attended the International Labor Conference and the sessions of the Governing Body of the International Labor Organization in Paris.

Horace M. Gray, professor of economics at the University of Illinois, has been appointed associate dean of the Graduate School at the University of Illinois.

Leo Grebler is now director of the Housing Finance Division, Office of the Administrator, National Housing Agency, Washington.

Gertrude Grodski has been appointed instructor in economics at the Louisiana State University.

Robert M. Haig spent the month of September in Puerto Rico as an adviser to the Governor on questions of public finance.

Franklin P. Hall, formerly chief of the Public Finance Unit, Land Economics Division, Bureau of Agricultural Economics, Department of Agriculture, is now in charge of travel and miscellaneous accounts in the International Payment Unit, International Economy Division, Bureau of Foreign and Domestic Commerce, Washington.

James K. Hall, who has served for the past year as a Lieutenant in the Naval Reserve, has resumed his teaching duties in public utilities and public finance in the College of Economics and Business at the University of Washington.

Frank H. Hamack of the College of Economics and Business, University of Washington, is teaching secretarial courses and business law at American University, Shriverham, England.

Seth Hammond of the department of economics at the University of Illinois has been advanced from the rank of associate to that of assistant professor.

George H. Hand has resigned as professor of economics and chairman of the department at the University of Vermont to accept the presidency of Fairmont (West Virginia) State College.

Maurice Happ, formerly of the University of Dubuque, has been appointed lecturer in secretarial studies at the College of Economics and Business, University of Washington.

Clifford M. Hardin, formerly assistant professor at the University of Wisconsin, has been appointed associate professor of agricultural economics at Michigan State College.

R. D. Haun who has been serving as price executive in the Office of Price Administration at Louisville, will return to the staff of the College of Commerce, University of Kentucky, on January 2, 1946.

Floyd B. Haworth of the department of economics at the University of Illinois has been advanced from the rank of associate to that of assistant professor.

Earl O. Heady has been advanced from instructor to assistant professor of agricultural economics at Iowa State College.

Richard B. Heflebower has resigned as dean of the School of Business Administration and head of the department of economics at the State College of Washington. When he leaves his present position as an economic adviser to the Deputy Administrator for Price of the Office of Price Administration, he will join the staff of the Brookings Institution.

Theodore C. Helmreich, formerly assistant professor of economics at St. Louis University and recently discharged from the Army, has been appointed assistant professor of economics at DePauw University.

Amy Hewes, until her retirement head of the department of economics at Mount Holyoke

College, is teaching in the department of economics at Massachusetts State College during the first semester of the year 1945-46.

George H. Hildebrand, Jr., on leave of absence since July, 1943, and now wage stabilization director of the Ninth Regional War Labor Board at Denver, has been promoted from assistant to associate professor of economics at the University of Texas.

Reed Hoar has been appointed instructor in economics at the University of Kansas.

Edgar M. Hoover, a Lieutenant in the Naval Reserve attached to the Office of Strategic Services Mission for Germany, will return to the University of Michigan at the beginning of the spring term as associate professor of economics.

John A. Hopkins, professor of agricultural economics at Iowa State College, has resigned to accept a position with the Office of Foreign Agricultural Relations in Washington.

Joseph B. Hubbard has accepted the position as economist with the Tri-Continental Corporation and its associated companies.

J. Richard Huber, for the past four years a member of the Office of Strategic Services, has resumed his duties as associate professor of foreign trade in the College of Economics and Business, University of Washington.

Leonid Hurwicz, appointed as associate professorship at Iowa State College in September, 1945, is on leave of absence until May 1, 1946, on a Guggenheim fellowship.

Kenneth D. Hutchinson is now professor of marketing and head of the department of marketing and advertising at Boston University.

Stanley F. Jablonski has returned to the University of Pittsburgh as assistant professor of accounting after a leave of absence.

Clifford D. Jacobs has been advanced to the rank of associate professor of business administration at the State College of Washington.

Neil H. Jacoby, professor of finance in the School of Business of the University of Chicago, has been promoted to vice-president in charge of development.

E. C. Jacobson has resigned from his position at the Department of Agriculture and become a member of the staff of the National Bureau of Economic Research.

Herschel F. Jones was recently appointed to the staff of the Bonneville Power Administration.

Andrew M. Kamarck of the Treasury Department is Deputy Director of the Finance Division of the U. S. Group Control Council, Germany, and alternate member of the Allied Finance Directorate for Germany.

Edward C. Keachie, now Captain in the Corps of Engineers, has been appointed associate professor of industrial management in the School of Business Administration, University of Tennessee, and will join the staff on his release from military service.

M. M. Keim, following his resignation as industrial specialist with the War Production Board, has joined the American Potash Institute, Washington, as head of its economics and statistical department.

Donald L. Kemmerer of the department of economics at the University of Illinois has been advanced from the rank of assistant to that of associate professor of economics.

Dudley Kirk has been appointed assistant professor of sociology at Princeton University.

K. E. Knorr, formerly of the Food Research Institute of Stanford University, is now research associate at the Institute of International Studies at Yale University, where he will work on the economic sources of military power with special emphasis on raw materials problems.

Herman E. Krooss has been made junior assistant in the department of economics of the New York University School of Commerce, Accounts and Finance for the year 1945-46.

Ernest Kurnow has been made junior assistant in the department of economics of the New York University School of Commerce, Accounts and Finance for the year 1945-46.

Alan Lanyon, formerly of the University of Maryland, resigned as chief of the Bureau of Ships section of the War Production Board and is with the American Embassy in France, serving as coal specialist.

Ben F. Lemert has been promoted to the rank of associate professor of economics at Duke University.

Don D. Lescohier of the department of economics of the University of Wisconsin has resumed full time teaching after serving part-time the past four years in order to act as consultant to the vice president of manufacturing of the International Harvester Company and with the Allis-Chalmers Company.

Marvin Levine has been made junior assistant in the department of economics of the New York University School of Commerce, Accountant, and Finance for the year 1945-46.

C. L. Littlefield, who was recently released from the Merchant Marine, has been appointed an instructor in the department of secretarial science at Louisiana State University.

J. A. Livingston has joined the staff of the *Philadelphia Record* as business editor.

Philipp H. Lohman, formerly associate professor of economics at Miami University (Ohio) and lately economics adviser and contributing editor to *Times*, has been made chairman of the department of commerce and economics of the University of Vermont.

Arthur N. Lorig of the College of Economics and Business, University of Washington, was a member of the staff of Allen R. Smart and Co. during the summer of 1945.

George J. Malanos, formerly of Harvard University, has joined the staff of the School of Business Administration at the University of Minnesota as an instructor in economics.

Edward S. Mason has resigned from the position he held with the Department of State, Washington, and has returned to Harvard University.

Stacy May is now assistant to the president and company economist of the McGraw-Hill Publishing Company.

Robert W. Mayer, formerly of Lehigh University and the War Production Board, has been appointed associate professor of economics at the University of Illinois.

Joseph F. McConnell has returned to the University of Illinois from the Bureau of Foreign and Domestic Commerce, Washington, as assistant professor in the department of economics.

Duane McCracken has rejoined the staff of the School of Business Administration at the University of Minnesota as an instructor in economics.

Lawrence P. McGrath, of Seton Hall College, has joined the faculty of the Graduate School of Social Science, The Catholic University of America, as assistant professor of economics.

R. D. McIntyre, who has served as Major in the Army Air Corps at Santa Ana, California, since September, 1942, will return to the staff of the College of Commerce, University of Kentucky, on January 2, 1946.

S. Sterling McMillan, formerly statistician for the Northern Trust Company, and more recently regional price economist for the Chicago office of the Office of Price Administration, has been appointed an instructor in the department of economics at Indiana University.

E. B. McNatt, who has been wage stabilizer of the War Production Board, Sixth District, Chicago, has returned to the department of economics at the University of Illinois as associate professor of economics.

Mrs Marian Meinkoth has been appointed instructor in the department of economics at the University of Illinois.

Herman C. Miller has returned to his position as professor of accounting at the Ohio State University after serving as a Captain in the Supply Corps of the Navy.

Wilbert E. Moore has been appointed assistant professor of sociology at Princeton University.

Julian D. Morgan has accepted a temporary appointment as instructor of economics at the University of Illinois.

Philip Neff, formerly research economist with the Haynes Foundation, has been appointed assistant professor of economics at Pomona College.

W. A. Neiswanger, who has been serving with the Office of Price Administration and

Foreign Economic Administration, Washington, has returned to the department of economics at the University of Illinois with the rank of professor of economics.

Edward G. Nelson has been appointed associate professor of accounting at the University of Kansas.

Mrs. Margaret Newberry is acting head of the department of secretarial science at Louisiana State University.

H. C. Nolen has returned to active service as associate professor of marketing at the Ohio State University after serving twenty-six months as a Colonel in the Military Government division of SHAEF.

Russell M. Nolen of the department of economics at the University of Illinois has been advanced from the rank of assistant professor to that of associate professor of economics.

H. M. Norton, head of the secretarial science department at Louisiana State University, was given a leave of absence to handle a program of education in England for the current year.

Thomas L. Norton, formerly chairman of the Second Division of the War Labor Board and 20th Century Club professor of economics at the University of Buffalo, was recently appointed dean of the School of Business and Civic Administration of The City College of New York.

Frank W. Notestein, director of the Office of Population Research at Princeton University, has been named professor of demography in the department of economics and social institutions.

Regnar Nurkse of the economic and finance department of the League of Nations and now associated with the Institute for Advanced Study at Princeton is visiting lecturer in economics at Columbia University for the year 1945-46.

William B. Palmer has been promoted to assistant professor of economics at the University of Michigan.

Clyde William Phelps, head of the department of economics and commerce in the University of Chattanooga, served as senior economist at the Federal Reserve Bank of Atlanta during the past summer.

Orme W. Phelps, assistant professor of industrial relations, has been appointed dean of students of the School of Business, University of Chicago.

Clarence Philbrook has returned from the armed services to take up his former position of instructor in economics at Iowa State College.

M. Ogden Phillips, professor of economics and commerce at Washington and Lee University, returned to active teaching in September after a two years' leave of absence devoted to research in industrial and commercial geography.

Lloyd Pierce has recently accepted the position of associate professor of economics at Carson Newman College at Jefferson City, Tennessee.

Montgomery E. Pike has been promoted to the rank of professor of business law at the Ohio State University.

J. Carl Poindexter has accepted a position as professor of economics at Roanoke College.

Miss Adamantia Pollis has been appointed instructor in economics at Goucher College.

Claude E. Puffer, formerly acting dean of the School of Business Administration and professor of economics, has been appointed dean of administration at the University of Buffalo.

B. U. Ratchford, professor of economics at Duke University, is on leave of absence to serve as chief economic analyst with the Economic Intelligence Unit, United States Group Control Council in Germany.

Frederick Gustav Reuss has been appointed lecturer in economics at Goucher College.

Karl D. Reyer, professor of merchandising and management, has returned to Louisiana State University after a five years' tour of duty as Lieutenant Colonel, during which he served in various parts of the United States and in England and France.

Mrs. Alice J. Reynolds has resigned her position as assistant professor of economics at Goucher College.

Lloyd G. Reynolds was appointed an associate professor of economics and also associate director of the Labor and Management Center at Yale University on July 1, 1945.

Evan O. Roberts has been promoted to the rank of associate professor of business administration at West Virginia University.

Julius Roller, who for the past two years and a half has been working as chief accountant, Detroit Ordnance District, War Department, with renegotiation of government contracts, has been appointed assistant professor of accounting in the College of Economics and Business, University of Washington.

Albert Rose, formerly stationed with the Directorate of Military Intelligence, National Defence Headquarters, Ottawa, has left the Canadian Army to accept the post of Research Director of the Welfare Council of Toronto.

Catherine G. Ruggles, now with the Bureau of the Budget, will return to the department of economics at the University of Illinois the second semester of 1945-46 with the rank of associate professor of economics.

David J. Saposs has resigned as chief economic adviser, Office of Labor Production, War Production Board and is now in Berlin engaged as chief of the Office of Reports and Statistics, Manpower Division, Office of Military Government of Germany.

William H. Schramper has been advanced from associate professor to professor of economics at Iowa State College.

Robert T. Segrest, on leave from the University of Georgia, was promoted on October 12 from wage stabilization director to vice chairman and public member of the Fourth Regional War Labor Board.

Lewis Severson has resumed his duties as head of the department of economics at Beloit College following a two-year leave of absence with the Excess Profits Division of the Bureau of Internal Revenue.

Ewing P. Shahan, formerly of Miami University (Florida) and more recently director of research and analysis for the War Manpower Commission in Alabama, has been appointed assistant professor of business administration at Vanderbilt University.

Harald G. Shields, associate professor of business education at the University of Chicago, is on leave of absence to teach at the American University at Biarritz.

Philip M. Smith, formerly at Whitman College, was appointed head of the department of social studies at Union College (Kentucky) and assumed his duties in October.

Robert S. Smith has been promoted to the rank of associate professor of economics at Duke University.

Vladimir de Smitt has been made senior assistant in the department of economics, New York University School of Commerce, Accounts and Finance for the year 1945-46.

Shirley D. Southworth, professor of economics, has returned to the College of William and Mary as acting head of the department of economics for the year 1945-46 after three years' service in the Division of Monetary Research of the Treasury Department.

J. J. Spengler, professor of economics at Duke University, has been appointed by the North Carolina Commissioner of Labor as one of the arbitrators provided under the arbitration act enacted by the last North Carolina legislature.

Henry W. Spiegel is teaching mathematical economics and advanced economic theory at the Graduate School of Social Science, The Catholic University of America.

William A. Spurr, serving as Lieutenant Commander, has been on flight duty as training officer for two carrier air groups at Oceana, Virginia.

William H. Stead, formerly dean of the School of Business and Public Administration and chairman of the department of economics at Washington University in St. Louis, has accepted an appointment as director of the Institute of Research and Training in the Social Sciences and chairman of the department of business administration at Vanderbilt University.

Craig T. Stockdale, formerly with the legal department of the renegotiation division of the Pittsburgh Ordnance District, is now with the University of Pittsburgh as assistant professor of finance.

Jacob B. Taylor has returned to his position as chairman of the department of accounting at the Ohio State University after serving as a Lieutenant Colonel in the Finance Corps of the Army.

W. Bayard Taylor, professor of finance at the University of Wisconsin, has resumed his work after a three-year leave of absence to serve as regional price executive in the Chicago office of the Office of Price Administration.

Richard B. Tennant was appointed instructor in economics at Yale University effective August, 1945.

Ralph I. Thayer, assistant professor of economics at the University of Washington, has been granted partial leave for continuation of his survey of the state's tax system.

William R. Thom has been elected to the House of Representatives as a member of the Ohio delegation.

Rayburn D. Tousley, after nearly two years with the Office of Price Administration, has resumed his position at the State College of Washington, where he has been promoted to the rank of associate professor.

Ernest J. Townsend, associate professor of economics at the Michigan State College of Mining and Technology, has been appointed head of a newly created department of engineering administration.

Orion Ulrey, associate professor of economics at Michigan State College, is on leave during 1945-46 to serve as counselor with the Department of Agriculture.

S. Herbert Unterberger has been appointed director of the case analysis division, National War Labor Board, Washington.

Paul M. Van Arsdell of the department of economics at the University of Illinois continues on leave of absence but has been advanced from the rank of assistant to that of associate professor of economics.

Lawrence L. Vance has taken a leave of absence from his position as lecturer in accounting at the University of California and is an instructor in the School of Business Administration at the University of Minnesota during 1945-46.

Horace H. Washburn has been appointed associate professor in the College of Business Administration and Industry at the University of Wichita.

Gordon S. Watkins, professor of economics at the University of California, Los Angeles, is on sabbatical leave for the year 1945-46.

Albert E. Waugh was recently appointed dean of the College of Arts and Sciences, University of Connecticut, and has relinquished the position of head of the department of economics.

Weldon Welfling, recently promoted to the rank of associate professor of economics at Duke University, who has been on leave of absence to work with the steel price branch of the Office of Price Administration in Washington, resumed his teaching duties in September.

Troy R. Westmeyer has been awarded a Tax Foundation-New York University fellowship in public finance for the year 1945-46.

Janet Weston of the department of economics at the University of Illinois has been advanced from the rank of associate to that of assistant professor.

R. H. Wherry has been promoted to the rank of associate professor of business administration at West Virginia University.

Wells J. Wright has joined the staff of the School of Business Administration at the University of Minnesota as a lecturer in business law.

Dean A. Worcester, Jr., formerly of Louisiana State University, was appointed associate professor of marketing in the College of Business Administration, University of Georgia, in July.

VACANCIES AND APPLICATIONS

The Association is glad to render service to applicants who wish to make known their availability for positions in the field of economics and to administrative officers of colleges and universities and to others who are seeking to fill vacancies.

The officers of the Association take no responsibility for making a selection among the applicants or following up the results. The Secretary's Office will merely afford a central point for clearing inquiries; and the *Review* will publish in this section brief descriptions of vacancies announced and of applications made. It is optional with those submitting such announcements to publish name and address or to use a key number.

Communications should be addressed to: The Secretary, American Economic Association, Northwestern University, Evanston, Illinois.

Vacancies

No announcements.

Teachers Available

International economic relations, comparative economic system, government and business, national defense and war, research: Man, 41, married, European Ph.D. degree, American citizen. Wide experience in academic teaching and research; many publications. Now employed at Eastern college; desires position with greater opportunities. Available in May, 1946. E108

Labor economics, industrial management: Man, 44, Ph.D., 1931, University of Wisconsin. University teaching experience; research and general experience in business and government agencies. Lecturer in the evening session of a large college and director of education in a commercial organization; on leave to teach in Army University Studies Center, England. Available, February, 1946. E116

Money and banking, business cycles, international trade and finance, corporation finance, economic theory, statistics: Man, 43, married, Ph.D., Harvard. Seventeen years of experience teaching economics in American colleges; also experience in banking and government service; publications; employed as head of department in small college but desires position with greater academic opportunities. Available in July, 1946. E133

Theory, finance, public control of business, public utilities, labor, consumption: Man, 57, married, A.B., Wisconsin, M.A., Kansas, plus law training. Five years of economics and political science teaching and research in universities; 6 years of public administration and research; 2 years of newspaper editorial work; business and civic-commercial organization experience; publications. Desires university or college teaching or research position. Available immediately. E190

Elementary economics, South American economy, postwar problems, cartels and corporations: Doctor of Law and Economics. Author of various books and opinions; member and honorary member of scientific societies; lecturing experience in the United States and abroad. Desires teaching or research position in or near New York or Washington; also part-time or advisory work or summer lecture work at a university. E195

Industrial relations, economic history, theory, government control of business, general and applied economics, industrial organization, management: Man, 32, married, B.A., M.A., Ohio State University; Ph.D., Columbia University. One year of experience in private research; 1 year government research; 2½ years of government administration and supervision of research staff; 3½ years of college teaching. Employed but desires college teaching position in California or Southwest. Available immediately. Would consider advisory or research work also. E197

Corporation finance, money and banking, elementary and intermediate accounting, elementary statistics, investments and economics: Man, 50, M.A., 1924, Ph.D., 1941. Wide college teaching experience for 12 years; 5 years of business research and statistics experience. Now associate professor of finance in a state university. Wishes permanent teaching position. E198

Money and banking, labor economics, corporation finance, investments, statistics: Man, 37, married, Ph.D. Six years of college teaching and administration; 3 years of business experience; 3 years of government administration and supervision of research staff; publications. Desires university or college teaching or administrative position. E202

Money and banking, corporation finance, economics, elementary and intermediate accounting: Man, 29, M.B.A., 1942, Northwestern University. Six years of teaching experience. Discharged veteran, 3 years service. Available immediately. E203

Foreign trade, public finance, industrial management, money, sociology: Man, in early forties, former Vienna economist; also Utrecht University; at present lecturing for the Drummond Professor on Foreign Trade Policy, Oxford University; highly specialized on modern foreign trade policy, locational theory, public finance; did Allied government and private economic and political research work of importance; publications in German and English. Willing to lecture and to do research work in economics, sociology, international relations, modern history, German, French. Acting secretary of the International Academy for Christian Sociology. Seeks American appointment. Dr. A. V. Berger-Voessendorf, 29 Coverly Rd., Headington, Oxford, England.

Labor problems, labor relations, economic principles, American economic history, money and banking, comparative economic systems, consumer economics: Man. Ten years of college teaching and directing research; 4 years in government research and operations. Books and other publications. Desires college teaching or research position. Available in February, 1946. E204

Economic theory, statistics, investments, economic history, fiscal theory, history of economic thought, money and banking: Man, 34, married, A.B., Long Island, B.S., M.B.A., New York, Ph.D., expected at American, 1946. Sixteen years of business experience with largest stock exchange; since 1938 as assistant to chief statistician; last 3½ years on military leave (Lt. Comdr., Supply Corps, Navy). Desires permanent research or teaching position in above fields. Available immediately. E205

Theory of employment and business cycles, national income, labor, political science: Man, 25, married, M.A., Cambridge, England, British; 3½ years Lieutenant in Royal Navy, concurrently London correspondent of a New Zealand journal; new economic research officer to the Government of New Zealand. Desires teaching or research position in America. Available in February, 1946. E206

International economics, money and banking, business cycles, British and European economies, political science: Man, 30, married, M.A. (1st class), B.Litt., Oxford, England. Two years of research at London School of Economics; author of recent British economic report; at present holding teaching post at British university. Wishes one- to two-year teaching appointment at an American university. Available in July, 1946. E207

